

Does the word 'protein' in the product name of a sports bar have an influence on the purchase intention of consumers?



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## Abstract

### Background and objective

The healthy lifestyle, so exercising and keeping a healthy diet, has become more popular. Products like sports bars are developed to provide the body with energy to recover. Protein is a nutrient that has positive characteristics but it can also be seen as unnatural or unhealthy. That is why the first hypothesis of this study is: 'The use of the term 'protein' in the product name has a negative influence on the purchase intention'. The second hypothesis is: 'Respondents' intensity of the daily exercise has a positive influence on the purchase intention'. The last hypothesis is: 'Respondents' intensity of daily exercise and the use of protein in product name interact in such a way that intensive exercise respondents will respond with higher purchase intentions and less intensive exercise respondents will respond with lower purchase intentions'.

### Method

An online between-subjects experiment was prepared in a questionnaire to test the hypotheses. The questionnaire was completed by 152 respondents (29 men and 123 women) who were assigned to the 'Protein & Sport' bar condition (n=76) or the 'Sport' bar condition. The respondents were asked about their purchase intention for the bar and also the process variables (tastiness, healthiness and naturalness) were measured. To measure the intensity of daily exercise (moderator) the Godin Leisure-Time Exercise Questionnaire was used. A manipulation check was done and information about the respondent's highest educational level and age were also asked.

### Results

All of the hypotheses tested were rejected and not significant ( $P = 0.323$ ,  $P = 0.546$ ,  $P = 0.142$  respectively). There was no difference between the purchase intentions of the 'Protein & Sport' bar and the purchase intention of the 'Sport' bar. It was also expected that the respondents with a high intensity of daily exercise would have a higher purchase intention for sports bars in general, but there was no significant difference in purchase intention between the high intensity exercise and low intensity exercise group. Also the combination of the intensity of the daily exercise and the mentioning of the word 'protein' did not have an influence.

There was no difference between the 'Protein & Sport' bar and the 'Sport' bar, the high and low intensity exercise respondents or interaction effect for the expected tastiness and expected naturalness. The healthiness of the 'Protein & Sport' bar was valued significantly healthier than the 'Sport' bar ( $P = 0.012$ ), but there was no difference between the high and low intensity exercise respondents and also the interaction effect was not significant.

### Discussion

There is not a difference in purchase intention between the 'Protein & Sport' bar and the 'Sport' bar. The 'Protein & Sport' bar was valued significantly healthier than the 'Sport' bar, so mentioning protein on the packaging of the bar will lead to a healthier perception of the bar. The influence of the word 'protein' in the product name only has been studied by the example of the sports bars. More research could be done with different kind of products to measure what effect protein has on the purchase intention.

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## 1. Introduction

Nowadays, people think more about what they eat and a healthy lifestyle has become more popular (Pinto et al., 2017; Phillips & Hallman, 2013). Being healthy exists of two parts; exercising and keeping a healthy diet. Different sorts of food and different nutrients are needed for a balanced diet (Henriksson et al., 2017). The combination of the right nutrition and exercising will contribute to a healthy body. Also for athletes nutrition is important. A balanced diet and good hydration can contribute to a better performance (Schneider & Benjamin, 2011).

Companies take advantage of this trend by developing products that are meant to support athletic performance or to help the body recover after exercising. The two clearest examples of these products are sports drinks and protein bars. These products help the athlete hydrate and can provide them with extra energy. Nutrients can be added for a greater physical performance (Schneider & Benjamin, 2011). A nutrient that a great amount of these products contain is protein. Protein is needed for muscles growth and helps the body immune system maintain (Evans, 2004; van der Zanden et al., 2014). Protein can be a source of energy during intense physical training and can help the muscles recover after this training (Hoffman & Maresh, 2011). For the muscles to grow the net protein balance, growth minus breakdown, should be positive (Phillips, 2004; van der Zanden et al., 2014).

The best way for the muscles to recover is if the protein is consumed directly before or shortly after exercising (Schneider & Benjamin, 2011; Phillips, 2004). This can be done by eating a protein bar. The benefit of using a protein bar is that a large amount of protein can be consumed in a short time and that it can be absorbed quickly (Hoffman & Maresh, 2011). Enriched products can be seen as unnatural and unhealthy. Some consumers might think that the needed protein can also be consumed by just keeping a healthy diet (van der Zanden et al., 2014). Also the tastiness of the products with protein can be questioned. Research has shown that protein bars were associated with bitter after taste (Pinto et al., 2017). Another study shows that consumers questioned whether claimed nutrients were really added to the product (van der Zanden et al., 2014).

There are different ways for communicating the benefits of protein in the sports bar via packaging. The way a product is presented has an influence on the purchase intention (Piqueras-Fiszman et al., 2013). The taste, price, brand and packaging all have an influence on the decision of the consumer for a product (Finkelstein & Fishbach, 2010; Mohebbi, 2014). The choice to purchase a certain product is often made in the store and the front panel of the package has a great influence on this decision. It gives a quick and easy impression of the product.

The non-verbal aspects of the package, so the color, images and design of the package, are assumed to have the most influence on the perception of the product (Mohebbi, 2014). Verbal information on the package has an influence too. The product name used on the package has influence on the perception of the product and therefore also on the consumer's purchase intention (Phillips & Hallman, 2013; Pickett-Baker & Ozaki, 2008). The product name is one of the quickest ways to communicate information about the product to the consumer. Adding beneficial characteristics to this name can have a positive effect on the perception of the product. For the sports bar this would mean that the product name should be changed to 'Sport protein bar'.

Little is known about what influence mentioning protein in the product name has on the perception of the product and the purchase intention. Protein is known for the muscles recovery after exercising and some other beneficial characteristics but at the same time it is known as less tasty and unnatural or unhealthy. It is not sure if the mentioning of protein in the product name has a positive influence on the purchase intention of the bar.

What could make a difference in the consumers' purchase intention is the consumers' exercising habits. Since protein is helping muscles to grow and recovery and provides the body with energy, professional athletes could gain more benefit from consuming protein than consumers who do not exercise. Professional athletes need more protein to exercise and recover. Their perception of the word 'protein' could be different and could have an influence on the purchase intention. Therefore the influence of this moderator 'the intensity of daily exercise' is worthwhile to study.

An online administrated two by two experiment will be done to test the perception of different product names. In this experiment we manipulate the product name to examine whether the mentioning of the word 'protein' has a negative influence on the purchasing intention of the consumer. Also the effect of the moderator 'intensity of the daily exercise' will be studied. In particular, the aim is to understand whether consumers who exercise intensively respond differently to a protein product name than consumers who exercise less intensively.

## 2. Theoretical framework

### 2.1 Intuitive processing of packaging by consumers

The decision to buy a bar depends on different aspects like the taste, price, brand, packaging and place on the shelf. Packaging has an important role in the consumer's decision at the point of purchase. The way a product is presented has an influence on the perception of the products. It has become an influential tool for marketing since the packaging of a product is the most direct connection to the consumer and the qualities of the product are communicated via the packaging (Mohebbi, 2014; Ngo et al., 2012; Husić-Mehmedović et., 2017).

#### 2.1.1 System thinking

The decision for a product also depends on the kind of thinking the consumer uses. The decision itself is made by the consumer and this could be a routine decisions or a non-routine decisions (Chen, Chen& Chen, 2013). These routine decisions are an example of system 1 thinking: a whole set of subsystems make decisions autonomously. This way of decision making is fast and is based on emotions and associations (Faghihi et al., 2015).

The non-routine decisions are examples of system 2 thinking (Evans, 2003). The decisions that have to be made are slow, conscious and well analyzed. This reasoning is based on previous experiences and hypothetical thinking. System 2 thinking intervenes with the outcome of system 1 thinking if this outcome is not convenient. An example of system 1 thinking is when the consumer is hungry he just eats the cookie that is in front of him on the table and system 2 thinking is that the consumer considers all his options. If the consumer uses system 1 or system 2 thinking has an influence on the importance of the elements of the package.

Purchase decisions are often made at the point of sale and based on routine and automatic processes (Husić-Mehmedović et al., 2017; Rogerson et al., 2011). The consumer who bases its decision on the front of the package often uses the system 1 thinking. This kind of thinking can be influenced easily by different aspects of the packaging, the non-verbal and verbal elements.

Also the attention the consumer pays to the different aspects of the packaging has an influence. There are different kinds of visual attention. There is the orientation that gives a fast impression of the product and the discovery which is a slower more detailed kind of attention (Husić-Mehmedović et al., 2017). With discovery attention the attention is also given for details like brand name or product name. The distinctiveness from the other bars is also a way to stand out (Husić-Mehmedović et al., 2017). The products with the best visual elements in their packaging will get the most attention from the consumer.

#### 2.1.2 Visual elements

For the system 1 thinking and the orientation attention the color and design of the package are important. Consumers that have to make a fast system 1 decision will often rely on the colors and graphics of the packaging for making a purchase decision (Mohebbi, 2014). Colors and design also help the consumer to identify the product. Colors have an influence on the consumer's behavior and feelings, and are often associated with certain kind of things. Green is for example associated with nature, fertility, youth and health, while red is associated with celebration, passion, ambition, power, speed, and energy (Mohebbi, 2014). Colors could also be connected to certain products or have a certain meaning. For example, the color red is often used for sparkling water and the color blue for still water. (Ngo et al., 2012). Within food categories different colors and designs for packaging are used to let the product stand out (Ngo et al., 2012). Another study showed that successful packages had three colors (Husić-Mehmedović et al., 2017).

Research is done about how to drive the consumer's attention to specific parts of the packaging that could help him identify the product (Ngo et al., 2012). The packaging that included a photo or image were evaluated as being more attractive and got more attention than the packaging with only text (Piqueras-Fizman et al., 2013).

## 2.2 Research on the effect of verbal package elements

Although the visual elements of the packaging draw the most attention, also the verbal elements have an influence on the purchase decision. Product names, claims and ingredients all provide the consumer with extra information about the product. Where the ingredients are just meant to inform the consumer can the product names and claims also be used to convince the consumer to buy the product.

The product names gives, just like the design, a quick impression of the product. It can be a point of recognition for the fast routine decision. But the product name can also give the first verbal information about the product. The perception of the product name has an influence on the purchase decision. Often the word or term used is associated with other things. These associations will help the consumer to form an opinion about the product. The product name and the terms used have an influence on the product perception. Research has shown that after mentioning the word 'natural' on a product, a product was more often described as natural than after seeing a packaging without the word 'natural' (Piqueras-Fizman et al., 2013). The word 'natural' could be associated with other terms like health and healthy.

### 2.2.1 Nutrient content claim

Nutrient content claims can give the consumer quick access to information about the product. The nutrient content claim gives information of the level of a nutrient in a product. This can be done by terms like "low", "free", "reduced", "more" and "light" (Agarwal et al., 2014). This claim only gives information about the content of the bar. Health and functional claims give more information about consequences of consuming the product.

In the case of the 'Protein & Sport' bar the product name is also partly a nutrient content claim. It claims that the bar does contain protein. This claim can be perceived differently and can have different influence on different consumers. Research has been done about the influence of nutrient content claims on packaging on the perception of a product. It was shown that nutrient content claims had a positive influence on the acceptance of the taste of the product. In a study about snack bars first a sensory test was done. This study between different snack bars showed that the taste of the fruits and nut bars was perceived higher than the taste of the protein bar and the nut bar. After this the participants also had to evaluate the packaging and after that the packing combined with health claims. The overall value of the nut and protein bars was higher with the extra information provided by the packaging and claims than they were after only tasting the bar. Even though the taste of the bar did not change, consumers accept a less satisfying taste when they think the bar is healthy (Pinto et al., 2017). A possible effect of the nutrient content claim can be health halos.

### 2.2.2 Health halos

Even though nutrient content claims only tell what nutrients the bar is containing, it still can have an influence on the consumers perception of the bar. This can be caused by the halo effect. The halo effect is the effect that when a positive characteristic is claimed that other positive not-claimed characteristics are also linked to the product (Fernan et al., 2017). This means that one positive thing is associated with another positive thing. In case of health this is called "health halos".

For example, in the study of the snack bars the 'cereal bar' was associated with healthiness. Next to that there are the examples of the terms "bio", "light" and "fit" on packaging that are also associated with health and naturalness (Pinto et al., 2017). Furthermore the use of the term 'sport' in the product name

had a positive influence on the sales of sports drinks. The sports drinks were associated with health and caused that different kind of people started consuming these drinks in different situations. The consumption of sports drinks has grown due to the use of these associations (Schneider & Benjamin, 2011; Maughan, 1998).

The perception of the claim depends on the consumer. We assume that most people value health and have a positive association with health. This means that they are willing to give up on other aspects like taste in order to achieve an as healthy product as possible (Pinto et al., 2017; Phillips & Hallman, 2013). Protein is known for being healthy. It helps the muscles grow and recover and it is a source of energy (Hoffman & Maresh, 2011). This perception of protein could cause that the bar itself is also perceived as healthy.

### *2.2.3. Healthy is untasty intuition*

Even though health is considered important, it is often not the main goal for choosing a product. Consumers often value taste as more important than health (Raghunathan et al., 2006; Pinto et al., 2017; Luomala et al., 2015). People may believe that a product is tasty when it has an unhealthy image and expect the product to be less tasty if it is perceived as healthy. This is the 'unhealthy is tasty intuition'. It can be compared to a similar heuristic that can occur when buying a product with a discount. A decrease in price is perceived as a decrease in quality (Raghunathan et al., 2006). When the first consumer buys the product for the original price and the second consumer buys the product with a discount, the first consumer will probably value the product more than the second consumer. So the bar with an unhealthy image will be perceived as being tastier than the same bar with a healthy image. This can have a negative influence on the purchase intention of the consumer.

Both aspects are still important while choosing a product. In order for the consumer to eat healthy he probably has to hand in on tastiness, but he will try to get the outcome with the highest value possible for healthiness and tastiness (Bialkova et al., 2016).

### *2.2.4. Enrichment effect on consumers*

While the benefits of nutrients like protein are known by some consumers, there are also negative attitudes toward foods with functional enrichments (Bech-Larsen & Grunert, 2003). In a study about food enrichments Danish consumers refer to them as unhealthy and artificial. Consumers prefer products with a natural doses of protein over product that are enriched artificially with protein (van der Zanden et al., 2014). Products that claim that a specific nutrient is added can have this negative artificial reputation but also products that claim to be 'light'. The term 'light' can also be seen as artificial (Luomala et al., 2015).

The knowledge about nutrition and enrichment has a great influence in the opinion of consumers. A study about genetically modified food showed the difference between the knowledge of consumers. Students, who were expected to have more scientific knowledge about the topic, were less negative toward GM foods than other consumers (Valente & Chaves, 2017).

A study showed that participants who were trying to lose weight focused on low fat, while participants that did not were focused on freshness (Luomala et al., 2015). The goal of the consumer influences what aspect of the product the consumer values most. In the case of the protein bar it could be that the professional athletes focus on the added protein, where the consumers who do not exercise that much might also focus on freshness and naturalness.

### 2.3 Intensity of daily exercise (moderator)

The decision for a product depends on different things but the decision is made by the consumer. There are different kind of consumers in relation with sport. This can vary from people who never exercise to professional athletes. These different kind of consumers have different interest and needs. Professional athletes, for example, need the right nutrition to help the body to be in good shape (Pickett-Baker & Ozaki, 2008). The professional athlete is more likely to need additional protein since he is likely to have intense and long moments of exercise. The protein is a source of energy and can help the muscles to recover faster after exercising. Protein can help the professional athlete to achieve their exercising goals. Professional athletes need more protein and might know this.

The consumer that does not exercise probably does not need extra protein in their diet. This consumer can have different associations with protein. In a study about different kind of bars, some of the opinions about the package of the bars were “I would consume the protein bar if I practiced intense physical activity or high energy demand” or “The presence of protein should increase muscle mass, but I would consume only when I was practicing physical activity.” (Pinto et al., 2017). These consumers associated protein with intense physical activity and did not feel related to this.

The different associations and exercising backgrounds have an influence on the perception of the word ‘protein’. The combination of the intensity of daily exercise and the estimated need for protein probably have an influence on the perception of the bar and therefore the purchase intention.

### 2.4 Hypotheses and conceptual model

The packaging of a product and the product name have a great influence on the purchase decision of the consumer. The decision for the bar is often made in the store and the product name gives a quick impression of the product name (Husić-Mehmedović et al., 2017; Rogerson et al., 2011; Wang et al., 2016). The presence of protein in bars can have benefits and disadvantages. On the one hand can the use of the word ‘protein’ in the product name be associated with different things like, for example, sports and nutrition. On the other hand protein can also be associated with a bitter after taste and it can also be seen as unhealthy and unnatural (Pinto et al., 2017; Evans, 2004; van der Zanden et al., 2014).

It is assumed that using protein on the packaging of a sports bar has a negative influence on the purchase intention of the consumer.

**Hypothesis 1:** The use of the word ‘protein’ in the product name has a negative influence on the purchase intention

The purchase intention can be explained by some process variables. The perceived tastiness, healthiness and naturalness of the bar might have an influence on the purchase intention of the consumer. As mentioned before is the taste of the product still the most important characteristic of a bar. Even though the consumer probably also have other goals or values when choosing a bar taste is considered the most important ((Raghunathan et al., 2006; Pinto et al., 2017). If the bar is perceived as being tasty the consumer is more likely to buy the bar.

Healthiness is also an important value for consumers. The nutrient protein is a source of energy and can help the muscles grow or recover and can therefore be seen as healthy (Evans, 2004; van der Zanden et al., 2014; Hoffman & Maresh, 2011). If this is the case it will probably have a positive influence on the purchase intention. Finally there is the naturalness of the bar. Consumers prefer their food to be as natural as possible (Bech-Larsen & Grunert, 2003; van der Zanden et al., 2014). Even though the consumer is not sure if the bar is enriched or not, it is assumed that mentioning protein on the packaging

of the bar has a negative influence on the perception of the naturalness of the sports bar. These variables will be measured and briefly discussed.

There are different kind of consumers and these consumers have different exercising habits. The intensity of the daily exercises of the consumer (moderator) probably has an influence on the purchase intention for sports bars. Consumers with a high intensity of daily exercise might be more interested in buying a sports bar. They need the energy a sports bar can provide for exercising (Pickett-Baker & Ozaki, 2008). A consumer with a low intensity of daily exercise probably doesn't need the addition energy. The respondents' intensity of the daily exercise therefore has a positive influence on the purchase intention.

**Hypothesis 2:** Respondents' intensity of the daily exercise has a positive influence on the purchase intention.

The intensity of the daily exercise of the consumer probably also has an influence on the perception of the use of protein in the product name. Research has shown that the consumers who do not exercise that much, have negative associations with artificial additives or products that are enriched (Pinto et al., 2017). The consumer with a high intensity of daily exercise might consume more protein since protein helps the muscles recover after an intense training (Pickett-Baker & Ozaki, 2008; Hoffman & Maresh, 2011). Therefore it is expected that respondents with a higher intensity of daily exercise will have a higher purchase intention for the sports bar with protein the product name that the respondents with a lower intensity of daily exercise.

**Hypothesis 3:** Respondents' intensity of daily exercise and the use of protein in product name interact in such a way that intensive exercise respondents will respond with higher purchase intentions and less intensive exercise respondents will respond with lower purchase intentions.

The hypotheses are part of the conceptual model, which is shown in figure 1.

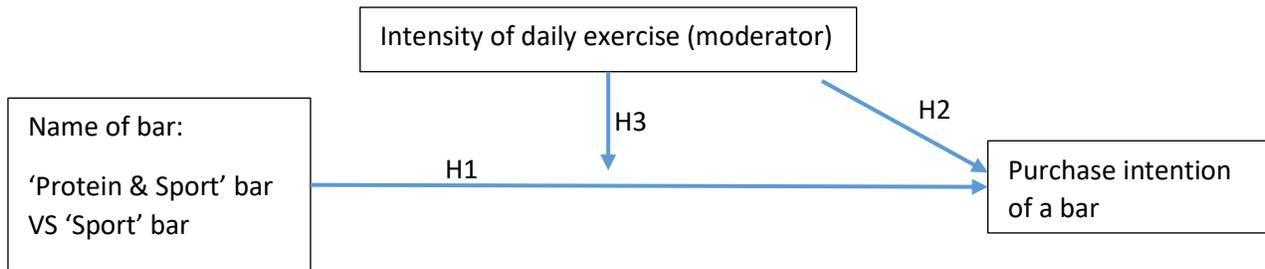


Figure 1: Conceptual model

### 3. Method

#### 3.1 Design

The objective of this study was to examine whether the mentioning the word 'protein' in the product name of the sports bar has a negative influence on the purchase intention of the consumer and if the intensity of the daily exercise has a moderating influence on the purchase intention. To test these hypotheses, an online between-subjects experiment was prepared. Every respondent was randomly assigned to one of the two conditions ('Protein & Sport' bar or 'Sport' bar). After seeing one of these two bars the respondent was asked to answer different questions about the dependent variable 'purchase intention' and 'tastiness', 'healthiness' and 'naturalness'.

The questionnaire was aimed at all respondents. There were not any specific requirements the respondents had to live up to. Background information of the respondents was gathered like gender and age and, most importantly, their intensity of daily exercise. The questionnaire was in Dutch and made with Qualtrics.

The respondents were assigned randomly to one of the two conditions and got to see the picture of the package of the bar for the first two sets of statements. The statements used to measure the purchase intention and the process variables were in both conditions the same and also the order in which the statements were shown were the same. In this way the respondents were not influenced by other factors.

In both conditions an almost similar bar was shown. The image of the bar used is an original package for an after sport protein bar. This package was chosen because the images of the packages in the conditions should be representative and plausible. The image of the package shown in condition 1 has the product name 'Protein & Sport bar' and the second bar has the product name 'Sport bar'. The two bars in the different conditions are shown in figure 2.



Figure 2- Overview of the different bars: the 'Protein & Sport' bar and the 'Sport' bar.

### 3.2 Participants

Respondents were approached via social media. The link to the questionnaire was shared on different groups on Facebook like “Wageningen student plaza”, “BBC Wageningen”, “WaHo”, “Duivendaal”. Next to that was the link shared on the researcher’s personal Facebook page and the link was shared by friends and family of the researcher. There were no specific requirements for the respondents to participate.

To answer the research question the questionnaire could be filled in voluntarily. There were 54 respondents who did not finish the questionnaire. These respondents were deleted. A statement was added to see if the respondent did read every question: ‘Show that you have read this statement by clicking on totally disagree’. Ten of the respondents did not do this and were also deleted. The questionnaire was completed by 152 respondents (29 men and 123 women). All of the respondents’ highest educational level was secondary vocational education or higher, but the most of the respondents (67.1 %) studied at the university.

### 3.3 Procedure

After the respondent clicked on the link to the questionnaire he or she went through the following phases 1) informed consent, 2) one of the conditions with statements about purchase intention, 3) statements about the process variables, 4) manipulation check, 5) intensity of daily exercise, 6) background information and 7) thank you message.

After the respondent clicked on the link to the questionnaire he was welcomed by the informed consent. The respondents were told that the questionnaire was part of a study about eating habits. After agreeing with terms of participation the respondents were randomly assigned to the ‘Protein & Sport’ bar (condition 1) or ‘Sport bar’ condition (condition 2). The package of the specific bar was shown and the respondents were asked to look at it carefully. Under the package there were statements about the respondents purchase intention. After telling to what extent they agreed with the statements about purchase intention they could go to the next phase. In the third phase the same package, from the same condition as before, was shown and respondents were asked to give their opinion about statements considering process variables. These process variables were tastiness, healthiness and the naturalness. To check if the respondents did read every question, a control question was added to the questions.

The fourth part was to check if the manipulation was done correctly and to measure if the respondents expected the bar from condition 1 to contain more protein. Respondents were asked to give their opinion about statements concerning different nutrients the bar would contain. The statements were added to see if the respondents thought that the bar contained protein. To hide this interest respondents were also asked about other nutrients.

To see if the difference in amount of exercising has an influence on the perception of the bar the intensity of the daily exercise of the respondent was measured. To measure this moderator, the Godin Leisure-Time Exercise Questionnaire was used. The respondents were asked to fill in the amount of time they spend doing high, medium or low intensity exercising. The last part was to gain information about personal information of the respondent. Questions were asked to gather personal and background information (gender, age, level of education). There was also room to leave comments for the researchers. After this the respondent got to see the last page of the questionnaire and he was thanked for his participation. The flow chart of the questionnaire is shown in figure 2.

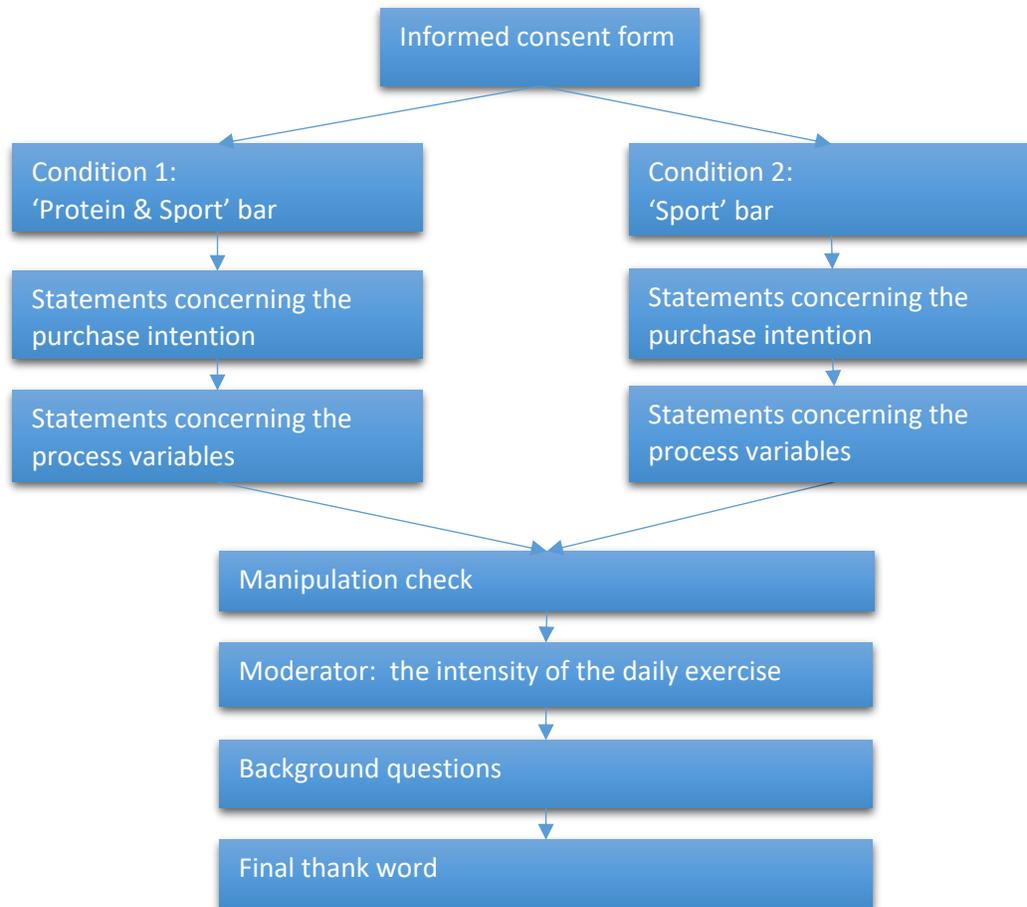


Figure 3: Flowchart of the questionnaire

### 3.4 Measures

To test the hypotheses an online questionnaire was prepared. After seeing one of the two conditions, respondents were asked to give their opinion about different statements about the bar. The statements were inspired by statements used in previous studies and were translated to Dutch.

#### 3.4.1 Purchase intention

The purchase intention was measured by three different statements. To measure the respondents opinion about the statements a seven-point Likert scale (1= strongly disagree, 2= mostly disagree, 3= partly disagree, 4= neutral, 5= partly agree, 6= mostly agree and 7 = strongly agree) was used. These statements are “I consider buying this bar”, “There is a big chance that I will buy this bar” and “I find this bar attractive” (Bialkova, Sasse & Fenko, 2016). Even though the respondents got to see one of the two conditions, the statements were completely the same in both conditions.

To measure if it is reliable to combine the statements to one ‘purchase intention’ variable, Cronbach’s alpha was calculated. When  $\alpha > 0.7$  the statements can be combined to one new variable. The Cronbach’s alpha for these statements is 0.853, so the purchase intention variable was made.

#### 3.4.2 Intensity daily exercise (moderator)

More information about the exercising habits of the respondents was needed to be able to measure the moderator. To measure the intensity of the daily exercise (moderator) the Godin Leisure-Time Exercise Questionnaire was used (Godin & Shephard, 1985). The participants were asked to fill in the amount of

times they did high intensity exercise, medium intensity exercise and light intensity exercise for more than 15 minutes in a normal week (7 days). These different amounts were used to calculate the Weekly Leisure Activity Score (WLAS). With this score ( $WLAS = (9 \times \text{Strenuous}) + (5 \times \text{Moderate}) + (3 \times \text{Light})$ ) the respondents could be divided in two groups with different intensities of exercising (Sari & Erdoğan, 2016). The respondents were divided based on the median. The high leisure activity respondents were having a WLAS of 82 or higher.

### *3.4.3 Process variables*

To be able to explain the difference in purchase intention between the two different conditions, process variables were also measured. The process variables in this case are tastiness, healthiness and naturalness. The statements were shown below the packaging of one of the two conditions, but in both conditions the statements used were the same and shown in the same order.

To measure the perceived estimation of the tastiness of the bar statements were used like: “this is a tasty bar” and “I think this bar is delicious” (Johansen et al., 2011). A seven-point Likert scale (1= strongly disagree, 2= mostly disagree, 3= partly disagree, 4= neutral, 5= partly agree, 6= mostly agree and 7 = strongly agree) was used to measure this. The Cronbach’s alpha for these statements is 0,887. That means that the combined variable ‘tastiness’ is reliable.

The perceived estimation of the healthiness of the bar was measured by using statements like: “This bar is healthy”, “I think this bar is nutritious” and “This bar is good for me” (Johansen et al., 2011). A seven-point Likert scale (1= strongly disagree, 2= mostly disagree, 3= partly disagree, 4= neutral, 5= partly agree, 6= mostly agree and 7 = strongly agree) was used to measure the respondent’s opinion of the statements. The Cronbach’s alpha for these statements is 0,813. That means that the combined variable ‘healthiness’ is reliable.

To measure the perceived naturalness of the bar statements were used like: “This is a natural bar”, “I think this bar is made of natural ingredients” and “There are no additives added to this bar” (Johansen, Næs & Hersleth, 2011). A seven-point Likert scale (1= strongly disagree, 2= mostly disagree, 3= partly disagree, 4= neutral, 5= partly agree, 6= mostly agree and 7 = strongly agree) was used to measure the respondent’s opinion of the statements. The Cronbach’s alpha for these statements was 0,685. That means that the combined variable ‘naturalness’ would not be reliable. However if the statement “There are no additives added to this bar” is deleted the Cronbach’s alpha is 0,709. In this case the combined variable ‘naturalness’ would be reliable. The statement “There are no additives added to this bar” was not taken into account when creating the ‘naturalness’ variable.

### *3.4.4 Manipulation check*

Since the focus of the study was to see if the use of protein in the product name of the bar had an influence on the purchase intention, a manipulation check was added. The statement “This bar contains protein” was added to see if the respondents expect the bar to contain protein (Johansen et al., 2011). To cover this statement and the focus on protein, statements about other nutrients were also added. These statements were “This bar contains low sugar”, “This bar contains low fat”, “This bar contains minerals”, “This bar contains vitamins” and “This bar contains carbohydrates” (Johansen et al., 2011). These statements will not be evaluated. A seven-point Likert scale (1= strongly disagree, 2= mostly disagree, 3= partly disagree, 4= neutral, 5= partly agree, 6= mostly agree and 7 = strongly agree) was used to measure the estimation of the respondents.

### *3.4.5 Background variables*

General information of the respondents was gathered. The respondent’s gender, age and highest level of education were asked. Gender was measured by two options (1=man and 2=woman). The respondents

could fill in their age (years) in numbers. The respondent's highest education level was measured by 6 options (1= basic education, 2= lower vocational education, 3= secondary vocational education, 4= senior general secondary education/ university preparatory education, 5= higher professional education and 6= university).

### 3.5 Data analysis

The data was analyzed via the statistical program IBM SPSS by using a significance level of  $p < 0.05$ . Firstly the randomization of the respondents in the two by two design was checked. The variables that were used to check the randomization are gender, age and level of education. Chi-square tests were done to check the randomization of the gender and the education level and to measure the differences in age a two way ANOVA test was done.

The goal of this study was to see what influence the mentioning of the word 'protein' in the product name has on the purchase intention. The difference in these variables between the different conditions and the different intensities of daily exercise were measured by a two way ANOVA test. The process variables were also measured by a two way ANOVA test.

A manipulation check was added to see if the respondents in the 'Protein & Sport' bar condition expected the bar to contain significantly more protein than the respondents in the 'Sport' bar condition. This was also measured by a two way ANOVA test.

## 4. Results

### 4.1 Randomization check

To check whether the assignment of respondents has been done randomly the difference in the variables between the conditions and the difference between the high and low leisure activity respondents have been measured. Chi-square tests were done to check the randomization of the gender and the education level. There is no significant difference between the distribution of men and women between the 'Protein & Sport' bar condition and the 'Sport' bar condition ( $P = 0.536$ ). There was also no significant difference in gender between the high intensity exercise respondents and the low intensity exercise respondents ( $P = 0.536$ ). Men and women were thus equally divided and this did in all probability not influence the results.

The highest level of education of the respondents have also been measured. There is no significant difference in the level of education between the 'Protein & Sport' bar condition and the 'Sport' bar condition ( $P = 0.385$ ). There was also no significant difference in the level of education between the high intensity exercise respondents and the low intensity exercise respondents ( $P = 0.094$ ). The level of education was equally divided across the conditions and did probably not influence the results.

The mean and the standard deviation of the age of the respondents in the different groups have been measured by a two way ANOVA (table 1). There was no significant difference between the different conditions ( $P = 0.185$ ) and also the interaction effect was not significant ( $P$  value = 0.649). The age was equally divided across the conditions and did probably not influence the results. There was a significant difference between the means of age in the high leisure activity scores and the low leisure activity scores ( $P = 0.001$ ).

### 4.2 Manipulation check

To measure if the manipulation in the different condition was done correctly and that the difference in the outcomes of the variables can be assigned to the presence of the word 'protein' on the packaging, a two way ANOVA has been done. The means and standard deviations can be found in table 1.

The total mean of the expected presence of protein in the 'Protein & Sport' bar was 5.72 and the mean of the 'Sport' bar 5.05. For the high intensity exercise respondents the mean in the 'Protein & Sport' condition was 5.90 (SD = 1.07) and in the 'Sport' condition 5.43 (SD = 1.42). The low intensity exercise respondents did also expect the 'Protein & Sport' bar (M = 5.51, SD = 1.12) to contain more protein than the 'Sport' bar (M = 4.73, SD = 1.38). The total mean in the 'Protein & Sport' bar condition was significantly higher than the 'Sport' bar condition ( $P = 0.002$ ). The mentioning of the word 'protein' on the packaging has an influence on the expected protein in the bar.

Also the difference between the high and low intensity exercise respondents was significant ( $P = 0.009$ ). The high intensity exercise respondents did more expect a bar to contain protein (M = 5.68, SD = 1.26) than low intensity exercise respondents (M = 5.09, SD = 1.32). The mean for the high intensity exercise respondents for the 'Protein & Sport' bar was 5.90 (SD = 1.07) and for the low intensity exercise respondents it was 5.51 (SD = 1.12). Also in the 'Sport' bar condition the high intensity exercise respondents (M = 5.43, SD = 1.42) expected the bar to contain more protein than the low intensity exercise respondents (M = 4.73, SD = 1.38). The intensity of the daily exercise does have an influence on the noticing of the word 'protein'. The  $P$  value for the interaction effect is not significant ( $P = 0.451$ ).

### 4.3 Testing hypothesis

The goal of this study was to see if the mentioning of the word 'protein' on the packaging has a negative influence on the purchase intention, if a high intensity of daily exercise has a positive influence on the

purchase intention of a bar and if the combination of the mentioning of the word 'protein' in combination with a high intensity of daily exercise has a positive influence on the purchase intention. The means and standard deviations of the purchase intention, the process variables, the randomization check and the manipulation check can be found in table 1.

Table 1- Means and standard deviations

	Condition 1: 'Protein & Sport' bar (n 76)				Condition 2: 'Sport' bar (n 76)				Main effect condition	Main effect intensity daily exercise	P value for interaction effect
	High weekly leisure activity score (n 41)		Low weekly leisure activity score (n 35)		High weekly leisure activity score (n 35)		Low weekly leisure activity score (n 41)				
	Mean	SD	Mean	SD	Mean	SD	Mean	SD			
Randomization check											
Age	21.59	2.92	26.60	11.88	23.00	6.79	29.49	14.04	0.185	0.001	0.649
Manipulation check											
Protein	5.90	1.07	5.51	1.12	5.43	1.42	4.73	1.38	0.002	0.009	0.451
Purchase intention	2.68	1.31	3.14	1.39	2.79	1.37	2.60	1.36	0.323	0.546	0.142
Process variables											
Tastiness	4.30	1.01	4.09	1.18	4.39	1.61	4.22	1.27	0.606	0.355	0.899
Healthiness	3.85	1.15	3.51	1.06	3.23	1.31	3.16	1.17	0.012	0.300	0.488
Naturalness	2.68	1.10	2.37	1.18	2.23	0.98	2.39	1.06	0.219	0.672	0.182

\*Mean scores are measured on a 7-point scale.

It was expected that the bar from condition 1 with protein in the product name was valued lower than the bar from condition 2 without protein. The mean of the purchase intention for the 'Protein & Sport' bar was 2.89 (SD = 1.36) and the mean of the 'Sport' bar was 2.69 (SD = 1.36). The difference between the different conditions is not significant ( $P = 0.323$ ) and the predicted hypothesis cannot be supported.

**Hypothesis 1 (rejected):** The use of the word 'protein' in the product name has a negative influence on the purchase intention.

It was expected that the respondents' intensity of the daily exercise had a positive influence on the purchase intention. This would mean that the purchase intention would be higher for respondents with a high intensity of daily exercise. There is no difference between the high intensity exercise respondents and the low exercise respondents ( $P = 0.546$ ) so the hypothesis will be rejected.

**Hypothesis 2 (rejected):** Respondents' intensity of the daily exercise has a positive influence on the purchase intention.

Lastly the interaction effect was measured to see if the combination of a condition and the intensity of daily exercise resulted in a significant difference. There was no difference in the purchase intention between the intensity of daily exercise and the 'Protein & Sport' condition and the 'Sport' condition. The interaction effect was not significant ( $P = 0.142$ ) and the predicted hypothesis cannot be supported.

**Hypothesis 3 (rejected):** Respondents' intensity of daily exercise and the use of protein in product name interact in such a way that intensive exercise respondents will respond with higher purchase intentions and less intensive exercise respondents will respond with lower purchase intentions.

#### 4.4 Process variables

The purchase intention might be explained by the process variables. These process variables are tastiness, healthiness and naturalness.

##### 4.4.1 Tastiness

The mean tastiness of the 'Protein & Sport' bar was 4.20 (SD = 1.09) and for the 'Sport' bar the mean tastiness was 4.30 (SD = 1.43) but there was no significant difference ( $P = 0.606$ ). There was also no difference between the high intensity exercise respondents and the low intensity exercise respondents ( $P = 0.355$ ). There is no difference in the expected taste of the bars.

The interaction effect is not significant ( $P = 0.899$ ). The high intensity exercise respondents did not value the taste of the 'Protein & Sport' bar higher than the low intensity exercise respondents, and the low intensity exercise respondents did also not value the 'Sport' bar higher than the high intensity exercise respondents.

##### 4.4.2 Healthiness

There is a difference in expected healthiness of the two bars. The expected healthiness for the high intensity exercise respondents is in the 'Protein & Sport' condition (M = 3.85, SD = 1.15) higher than in the 'Sport' condition (M = 3.23, SD = 1.31). This is the same for the low intensity exercise respondents (M = 3.51, SD = 1.06; M = 3.16, SD = 1.17). The expected healthiness of the 'Protein & Sport' bar (M = 3.69, SD = 1.11) is significantly higher ( $P = 0.012$ ) than the expected healthiness of the 'Sport' bar (M = 3.19, SD = 1.23). The bar with protein added to the product name is expected to be healthier.

There is not a difference ( $P = 0.300$ ) between the high intensity exercise respondents (M = 3.56, SD = 1.26) and the low intensity exercise respondents (M = 3.32, SD = 1.23). The intensity of the daily exercise does not have an influence on the expected healthiness of the bars. Also the interaction effect is not significant ( $P = 0.488$ ). The high intensity exercise respondents do not value the healthiness of the 'Protein & Sport' bar higher than the low intensity exercise respondents, but the low intensity exercise respondents also do not value the 'Sport' bar higher. There is not a difference.

##### 4.4.3 Naturalness

There is not a difference ( $P = 0.219$ ) in the expected naturalness of the 'Protein & Sport' bar (M = 2.54, SD = 1.14) and the expected naturalness of the 'Sport' bar (M = 2.32, SD = 1.02). The intensity of the daily exercise did not have an influence on the expected healthiness of the bars ( $P = 0.672$ ).

The high intensity exercise respondents did not value the 'Protein & Sport' bar to be more natural and the low intensity exercise respondents also did not expect the 'Sport' bar to be more natural. There is no difference and the interaction effect is not significant ( $P = 0.182$ ).

#### 4.5 Summary results

All of the hypotheses tested were rejected and not significant ( $P = 0.323$ ,  $P = 0.546$ ,  $P = 0.142$  respectively). It was expected that the use of the word 'protein' in the product name has a negative influence on the purchase intention. There was however no difference between the purchase intentions of the 'Protein & Sport' bar and the purchase intention of the 'Sport' bar. It was also expected that the respondents with a high intensity of daily exercise would have a higher purchase intention for sports

bars in general, but there was no significant difference in purchase intention between the high intensity exercise and low intensity exercise group.

Also the combination of the intensity of the daily exercise and the mentioning of the word ‘protein’ did not have an influence. The high intensity exercise respondents were expected to have a higher purchase intention for a bar with protein in the product name than low intensity exercise respondents. The respondents’ intensity of daily exercise and the use of protein in product name did not interact in such a way that intensive exercise respondents will respond with higher purchase intentions and less intensive exercise respondents will respond with lower purchase intentions.

Process variables were measured since they might be able to explain the difference in purchase intentions. There was no difference in the expected tastiness and expected naturalness between the ‘Protein & Sport’ bar and the ‘Sport’ bar, the high and low intensity exercise respondents and also the interaction effect was not significant.

The healthiness of the ‘Protein & Sport’ bar was valued significantly healthier than the ‘Sport’ bar ( $P = 0.012$ ), but there was no difference between the high and low intensity exercise respondents and also the interaction effect was not significant.

A summary of the results are shown in table 2.

*Table 2- Summary of the results*

<b>Hypothesis</b>	<b>P value</b>	<b>Supported/ rejected</b>
1) The use of the word ‘protein’ in the product name has a negative influence on the purchase intention	0.323	Rejected
2) Respondents’ intensity of the daily exercise has a positive influence on the purchase intention.	0.546	Rejected
3) Respondents’ intensity of daily exercise and the use of protein in product name interact in such a way that intensive exercise respondents will respond with higher purchase intentions and less intensive exercise respondents will respond with lower purchase intentions.	0.142	Rejected

## 5. Discussion

Research on packaging has shown that colors and design of the packaging are important and can influence the fast system 1 thinking decision a lot (Mohebbi, 2014; Ngo et al., 2012). Also the verbal elements of the packaging have been studied. Product names, health claims and ingredients all provide the consumer with more information about the product and are used to get a quick impression of the product while making a system 1 decision. Especially the health claims already have been studied (Agarwal et al., 2014; Pinto et al., 2017).

Research has been done on sports bars. The taste of these bars was tested and also the packaging of the bars were evaluated (Pinto et al., 2017). The effect of protein in the product name is not clear yet. It is known that protein in an explaining health claim has a positive effect on the perception of the bar (Agarwal et al., 2014). It is also known that protein has positive characteristics but there are negative associations connected to protein (Evans, 2004; van der Zanden et al., 2014; Hoffman & Maresh, 2011; Pinto et al., 2017). The effect of protein in the product name on the purchase intention was missing.

### 5.1 Theoretical contributions

The influence of mentioning the word 'protein' in the product name on the purchase intention was studied. It was expected that the mentioning of the word 'protein' in the product name could have a negative influence because consumers would expect it to be less natural, less healthy or less tasty. The use of the word 'protein' in the product name is also a nutrient content claim. It gives a quick impression of the ingredients of the bar and can influence a system 1 decision. Even though the word 'protein' was noticed on the packaging of the bar, it did not result in a difference in purchase intention for the two bars.

It was expected that the exercising habits of the consumer would have an influence in the purchase intention of sports bars in general. Some consumers said that they would only be interested in a sports bar if they "... practiced intense physical activity or high energy demand" (Pinto et al., 2017). However there was not a difference between the purchase intention for sports bars for high intensity exercise respondents and low intensity exercise respondents.

The combination of the exercising habits and the use of protein in product name was expected to interact in such a way that high intensive exercise respondents would respond with higher purchase intentions and less intensive exercise respondents would respond with lower purchase intentions. The high intensity exercise respondents were expected to have higher needs for energy and muscles recovery (Evans, 2004; van der Zanden et al., 2014). This effect was not shown in this study. There was not a difference between the high intensity exercise respondents and the purchase intention for the 'Protein & Sport' bar and the low intensity exercise respondents and their purchase intention for the 'Sport' bar.

The effect of mentioning protein in the product name might be explained by the process variables. The first of the process variables was the tastiness of the bar. A previous study showed protein bars were associated with bitter after taste (Pinto et al., 2017). This study showed that there was no significant difference between the 'Protein & Sport' bar and the 'Sport' bar. It also did not matter if the respondent had a high or low intensity of daily exercise and there was also no significant interaction effect.

Secondly the healthiness of the bar was measured. The 'Protein & Sport' bar was valued significantly healthier than the 'Sport' bar. Protein was already known for being a source of energy, for helping the body immune system maintain and for helping the muscles recover (Evans, 2004; van der Zanden et al., 2014; Hoffman & Maresh, 2011). It was also known that products that are enriched with nutrients can be

seen as unnatural and unhealthy (van der Zanden et al., 2014). The results show that there is a difference and that the bar with protein in the product name is valued healthier, so mentioning protein on the packaging of the bar will lead to a healthier perception of the bar. There was no difference in the expected healthiness for the bars between the high intensity exercise respondents and the low intensity exercise respondents.

The last process variable was naturalness. It was already known that consumers prefer products with natural doses of protein instead of products that are enriched artificially with protein (Bech-Larsen & Grunert, 2003; van der Zanden et al., 2014). However, there was not a difference in expected naturalness between the 'Protein & Sport' bar and the 'Sport' bar nor the high and low intensity exercise respondents.

Like said before, the purchase intention depends on different aspects. Tastiness, healthiness and naturalness are all taken into account but what variables is valued most important depends on the consumer. If the consumer wants a tasty bar and associated protein with a bad taste he will probably choose another bar. This is the same principle of the study where participants tried to lose weight and were focused on low fat while participants that did not were focused on freshness (Luomala et al., 2015). Even though consumers often value taste as more important than health, they will try to get the outcome with the highest overall value (Raghunathan et al., 2006; Pinto et al., 2017; Luomala et al., 2015). The results showed that the respondents did value the 'Protein & Sport' bar healthier than the 'Sport' bar, but there was no difference in purchase intention, tastiness or naturalness. It cannot be said which product variables have the most influence on the purchase intentions for the 'Protein & Sport' bar and the 'Sport' bar.

## 5.2 Limitations

The influence of the word 'protein' on the packaging only has been measured in this study by the specific example of the sports bar. This specific product could overall be seen as less tasty, healthy or natural and the purchase intention could be lower for these kind of bars. More research could be done with different kind of products to measure what effect protein has on the purchase intention. It might be that a more extensive study can show other differences between products with protein in the product name or not.

The difference in age between the high intensity exercise respondents and the low intensity exercise respondents is significantly different. This difference in age could be explained by the assumption that younger people exercise more intensively than older people. The difference of age in the high and low intensity exercise groups could have an influence on the results of the study.

The highest level of education is for the greater part university. Even though the respondents were equally divided over the conditions and intensity of exercising groups, it could be that the effects would be different for other levels of education. Assuming that most of the respondents study at Wageningen University their knowledge about food might be above average. They might have thought differently and more about the bar. Their decision would be based on the system 2 thinking, while respondents with less knowledge might depend more on the system 1 thinking and their perception of the bar could be different.

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## 7. Appendix

### 7.1 Questionnaire



 **WAGENINGEN UR**  
*For quality of life*

Fijn dat je mee wilt doen aan dit onderzoek! Deze vragenlijst maakt deel uit van een onderzoek naar eetgedrag van Wageningen Universiteit.

De vragenlijst bestaat uit 5 delen en het invullen van de vragenlijst duurt ongeveer 5 minuten. Er zijn geen goede of foute antwoorden, wil je invullen wat als eerste bij je opkomt? Als deelnemer aan dit onderzoek blijf je geheel anoniem.

Er zijn geen risico's of voordelen verbonden aan het invullen van de vragenlijst. Je kunt op ieder moment beslissen om te stoppen met invullen. Voor eventuele vragen kun je contact opnemen met [julie.tenbrink@wur.nl](mailto:julie.tenbrink@wur.nl).

Door op 'ja' te klikken geef je aan dat je bovenstaande hebt gelezen en ermee instemt:

ja, ik doe mee aan dit onderzoek

0%  100%

>>

After seeing the message and agreeing to participate, the respondent was assigned to one of the two conditions.

## Condition 1



1. Bekijk rustig deze reep.



Wil je aangeven in welke mate je het eens of oneens bent met de volgende stellingen?

	volledig mee oneens	grotendeels mee oneens	gedeeltelijk mee oneens	neutraal	gedeeltelijk mee eens	grotendeels mee eens	volledig mee eens
<input type="radio"/> Ik overweeg deze reep te kopen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> De kans is groot dat ik deze reep zal kopen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Ik vind deze reep aantrekkelijk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



2. Bekijk rustig deze reep.



Nu volgen nog een aantal stellingen. Wil je aangeven in welke mate je het eens of oneens bent met de volgende stellingen?

	volledig mee oneens	grotendeels mee oneens	gedeeltelijk mee oneens	neutraal	gedeeltelijk mee eens	grotendeels mee eens	volledig mee eens
Deze reep smaakt goed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik denk dat deze reep lekker is.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deze reep is gezond.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik denk dat deze reep voedzaam is.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik denk dat deze reep goed voor mij is.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik denk dat deze reep natuurlijk is.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Laat zien dat u deze stelling heeft gelezen door op volledig mee oneens te klikken.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik denk dat deze reep gemaakt is van natuurlijke ingrediënten	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Er zijn geen onnatuurlijke toevoegingen aan deze reep toegevoegd	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

0%  100%

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Condition 2



1. Bekijk rustig deze reep.



Wil je aangeven in welke mate je het eens of oneens bent met de volgende stellingen?

	volledig mee oneens	grotendeels mee oneens	gedeeltelijk mee oneens	neutraal	gedeeltelijk mee eens	grotendeels mee eens	volledig mee eens
Ik overweeg deze reep te kopen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De kans is groot dat ik deze reep zal kopen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik vind deze reep aantrekkelijk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



2. Bekijk rustig deze reep.



Nu volgen nog een aantal stellingen. Wil je aangeven in welke mate je het eens of oneens bent met de volgende stellingen.

	volledig mee oneens	grotendeels mee oneens	gedeeltelijk mee oneens	neutraal	gedeeltelijk mee eens	grotendeels mee eens	volledig mee eens
Deze reep smaakt goed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik denk dat deze reep lekker is.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deze reep is gezond.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik denk dat deze reep voedzaam is.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik denk dat deze reep goed voor mij is.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik denk dat deze reep natuurlijk is.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Laat zien dat u deze stelling heeft gelezen door op volledig mee oneens te klikken.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik denk dat deze reep gemaakt is van natuurlijke ingrediënten	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Er zijn geen onnatuurlijke toevoegingen aan deze reep toegevoegd	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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## Manipulation control questions



3. Hieronder staan nog een aantal stellingen over de reep die je zo juist hebt bekeken. Wil je aangeven in welke mate je het eens of oneens bent met de volgende stellingen?

	Volledig mee oneens	grotendeels mee oneens	gedeeltelijk mee oneens	neutraal	gedeeltelijk mee eens	grotendeels mee eens	volledig mee eens
Deze reep bevat weinig suiker.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deze reep bevat weinig vet.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deze reep bevat vitaminen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deze reep bevat mineralen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deze reep bevat proteïne.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deze reep bevat koolhydraten.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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## Moderator (intensity daily exercise)



4. Dit deel van dit onderzoek bestaat uit een aantal vragen over jouw sportgedrag.

**Ga uit van een normale week (7 dagen). Hoe vaak doe je gemiddeld een van de volgende sporten voor meer dan 15 minuten in je vrije tijd?**

Bijvoorbeeld wanneer je een uur per week sport vul je een 4 in.

**Hoge inspanning (hoge hartslag).**

(bijvoorbeeld rennen, joggen, hockey, rugby, voetbal, squash, basketbal, langlaufen, judo, skeeleren, intensief zwemmen en intensief fietsen.)

Keer per week:

**Gemiddelde inspanning (niet uitputtend).**

(Bijvoorbeeld snel wandelen, honkbal, tennis, rustig fietsen, rustig zwemmen, badminton, volleybal, skiën en dansen)

Keer per week:

**Lichte inspanning (minimale inspanning).**

(Bijvoorbeeld yoga, boogschieten, bowlen, vissen vanaf een rivieroever, golf, wandelen)

Keer per week:

0%  100%



## Background questions



5. Dit laatste deel van het onderzoek bestaat uit een aantal persoonlijke vragen.

Wat is je geslacht?

- Man
- Vrouw

Wat is je leeftijd?

Wat is je hoogstgenoten opleiding, al dan niet afgerond?

- Basisonderwijs
- Lager beroepsonderwijs (LBO, VMBO)
- Middelbaar Beroepsonderwijs (MBO)
- Hoger Algemeen Voorbereidend/ Wetenschappelijk onderwijs (HAVO, VWO)
- Hoger Beroeps onderwijs (HBO)
- Wetenschappelijk onderwijs (WO)
- Anders, namelijk

Als je nog opmerkingen hebt voor de onderzoekers, schrijf deze dan hieronder:

**Bedankt voor je bijdrage aan het onderzoek!**

Klik op het pijltje naar rechts om de vragenlijst in te sturen.

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## Final thank word



Bedankt voor uw tijd om aan deze enquête deel te nemen.  
Uw antwoord is geregistreerd.

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