Radboud University

Research Proposal: Bachelor Thesis 2021

What is the effect of different types of explanations on the persuasiveness of an advertisement on respondents?

Radboud University Nijmegen, Netherlands

Study degree: Bachelor - International Business Communication

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Abstract

The current study focused on the persuasiveness of an advertisement concerning an environmental issue (reduction of plastic) on respondents. A total of 137 students who mainly were of Dutch, German, Vietnamese, English, and international origin evaluated three degrees of type of explanation: *How* explanation, *Why* explanation, and no explanation by viewing an advertisement. Respondents evaluated the attitude towards the ad, the attitude towards the behavior, and the intention to implement the behavior in an online questionnaire.

In the current study, there was no significant effect of different types of explanation (*how, why, no* explanation) on the attitude towards the ad, attitude towards the behavior, and intention to implement the behavior. Several factors could have led to the insignificant effects, namely, a lack in the design of the advertisements, an irrelevant setting, or the choice of cultures, for example, which can be implemented in future research.

Keywords: persuasiveness, attitude, intention, behavior, advertisement, *How* explanation, *Why* explanation, *No* explanation, English

Introduction / Theoretical framework

In everyday life, we are dealing with interactions, the unplanned discourse in which two or more persons are taking turns. We encounter interaction in verbal situations when we are leading a conversation with someone else. In such spoken interactions, whenever we make utterances, we sometimes use different types of speech acts such as giving explanations to validate our expressions and give a reasoning for what we are trying to say (Jones, 2012). Not providing an explanation is also an option that implies that the speaker feels that the message can be understood without it, i.e., the explanation is left implicit. If one is in a casual social verbal interaction, for example, one could apply explanations to make requests understandable and to provide help when needed (Baranova & Dingemanse, 2016). Therefore, explanations can also be explicit when they are used to emphasize certain actions, for example, when a

request involves using a pointing gesture to make a required action clear ("Could you sit on the chair here, because the camera does not see you."). In this case, explanations can be used to make social actions more intelligible.

The use of an explanation also has an impact on how people can be more likely to comply with requests, as it was studied by Langer, Blank, and Chanowitz (1978) in a copy machine experiment, looking at responses after giving different reasons or no reasons with two different levels of effort. In this experiment, the effort varied in the number of pages that people wanted to copy which was formulated in a request to someone else who was about to use a copy machine, asking if they could go first. When the request involved a higher number of pages, i.e., a higher effort, people were less likely to comply. But when the reason given involved "being in a rush", there was compliance to some extent, which implies that certain explanations indeed affect the compliance even though the effort is higher.

Similarly, as the research done in casual interaction situations, one can also take spoken interaction in institutional contexts into account. For example, in health communication, explanations also referred to as accounts, can be applied when doctors give advice or recommendations to their patients. Here, explanations might be used by doctors when patients express a certain emotional state such as being concerned or preferring particular activities (Parry, 2009). Overall, explanations in health communication can arise when doctors have to deal with the resistance of patients and therefore, use explanations to persuade, influence, and motivate them. Persuasiveness in explanations can also be found when looking at the interaction that involves written language. Fishbein and Yzer (2003) set up the integrative model of behavior prediction which explains that behavior is formed by the person's attitude, perceived norm, and self-efficacy. The attitude is based on behavioral beliefs and outcome evaluations. The perceived norm refers to how beliefs are created through norms and the motivation to comply. Self-efficacy is formed by efficacy beliefs which refer to the extent to which an individual thinks they can do something. Accordingly,

an attitude would then concern the evaluation of how favorable an individual thinks of a certain behavior. Thus, this model can be used as a guideline when wanting to find out which beliefs have to be focused on in a commercial context, for example.

Advertisements are known to be able to change recipients' behavior or attitude towards the product that is presented. This is due to the communicative purpose of advertisements to find suitable customers, looking at the values that are considered desirable by the target group (Jones, 2012). Thus, it is also a situation in which an interaction occurs, as it is an interaction between the advertiser and the recipient or consumer. An important difference between a casual interaction between two persons and the interaction between the advertiser and the consumer lies in the directness. There is rather a one-way direction because the advertiser does not receive direct feedback, only if the consumer decides to engage and share information about, e.g., having bought the product on social media.

When connecting advertisements to explanations, one could thus look at how different degrees and types of explanations affect the attitude towards the product and also how it might affect their buying behavior, i.e., willingness to buy a product. Wang and Benbasat (2007) defined such types of explanations as *how*, *why*, and *trade-off* and connected these explanations to an advertising context. *How* explanations provide a link between buyers' knowledge – their needs, intended uses, preferences – and what they need to know – the attributes of the product that satisfy those needs, uses, and preferences of the buyer. The buyer is given instructions on the way the product is supposed to be used. In *why* explanations, the goal is to close a potential "intention gap" between the product and the buyer which can arise due to concerns about the buyer's interests not being put first. Here, the buyer is informed about the usefulness of using a certain product. Finally, *trade-off* explanations focus on providing objective knowledge such as different product features and the potential costs. These help the buyer to make an evaluative judgment and can increase their integrity beliefs.

As research (Wang & Benbasat, 2007) has only focused on persuasive messages in a

commercial context so far, it is not clear how the types of explanations, in this case, *how, why,* and *trade-off* would work for different types of persuasive messages such as messages in which the viewer is persuaded to fulfill a good deed. Because trade-off explanations rather relate to the value and pricing of a product, this type of explanation can be left out in the current study because it does not fit the chosen advertisement situation. Therefore, only the *how* and *why* explanations are used as conditions for this study and are used to elaborate on previous research. The aim is to find out whether the *how* and *why* explanations are also applicable to different types of advertising, not focusing on the buying behavior but rather on the willingness to change certain behavior. In this study, the target behavior is the willingness to use less plastic which involves the enhancement of environmentally friendly behavior. When persuading people to change their behavior into being more environmentally friendly, it is expected that the behavioral change is quite demanding to several persons, as there normally no direct rewards. This is because people think that they are rather doing something good more for someone (e.g., humans living in poverty) or something else (e.g., the environment) than for themselves. The findings might be helpful for advertisers as these can be considered when making choices on how to set up messages in advertising if it involves persuading people into the changing of certain behavior. Using the model of targeted behavior (Fishbein & Yzer, 2003), this study focuses on persuasiveness involving the attitude towards the ad, attitude towards the behavior, and the intention to implement the behavior as the three dependent variables. Therefore, this leads to the following research question:

RQ: What is the effect of different types of explanations on the persuasiveness of an advertisement on respondents?

The research question consists of three parts, namely:

RQ1: What is the effect of different types of explanations on the attitude towards the ad?

RQ2: What is the effect of different types of explanations on the attitude towards the behavior?

RQ3: What is the effect of different types of explanations on the intention to implement the behavior (*use less* plastic) described in the ad?

Method

Materials

To test the effect of different levels of the independent variable type of explanation, advertisements were designed for the three levels of the type of explanation: no explanation, *how*, and *why* explanation. The use of *how* and *why* explanations are based on Wang and Benbasat (2007).

In total, one advertisement per condition was designed, resulting in three advertisements. The phrase "Use less plastic" was printed on each advertisement. For the first condition, involving no explanation, only the phrase was visible. In the second condition, involving the *how* explanation, the phrase was accompanied by a short text that was introduced with "by..." and is then had statements such as "... bringing your own shopping bag". The third condition, the use of the *why* explanation, made use of the word "because" to explain and give reasons why the viewer should change their behavior. The advertisements are designed as followed:

1. Advertisement – no explanation:

2. Advertisement – *how* explanation:

3. Advertisement – *why* explanation:

Subjects

In total, there were 179 responses to the survey. For the analysis, unfinished questionnaires were not taken into account, which resulted in a valid number of 137 participants who were exposed to three different conditions (type of explanation) randomly: *How* explanation, *Why* explanation, and *no* explanation. The age of the respondents varied from 18 to 59 years (M = 24, SD = 10.16). A one-way ANOVA stated that the age distribution did not vary between the three conditions (F (2, 123) = 0.58, p = .558).

The majority of the participants were female with a total of 89, while 48 participants were male. A chi-square test showed that the gender distribution did not alter between the three conditions (χ^2 (2) = 0.071, p = .965).

Most of the participants indicated having a high school degree, with 62.0% (N = 85), 27.0% having a Bachelor's degree (N =37), 5.1% having a Master's degree (N = 7), 3.6%

having a Trade/technical/vocational degree (*N* = 5), and 2.2% having a Doctorate degree (*N* = 3). A chi-square test revealed that the distribution of educational level did not vary between the three conditions (χ^2 (8) = 7.13, *p* = .523)

The participants had different nationalities, 73 were Dutch (53.3%), 33 were German (24.1%), 9 were Vietnamese (6.6%), 8 were of English origin (5.8%), and 9 (6.6%) were of other nationalities (namely, Greek, Hungarian, Japanese, Luxembourgish, Malaysian, Romanian, and Spanish). Again, a chi-square test showed that there were no significant differences in the distribution of different nationalities for the three conditions (χ^2 (50) = 52.30, *p* = .385)

When it comes to the English proficiency of the respondents, 49 (35.8%) indicated that they were advanced, 47 (34.3%) were proficient, 23 (16.8%) were upper-intermediate, 14 (10.2%) were intermediate, 3 (2.2%) were elementary, and there was 1 beginner.

Significant differences were found between the English proficiency of the respondents and the type of explanation. A chi-square test for the type of explanation with English proficiency as a factor showed a significant relation (χ^2 (10) = 19.75, *p* = .032).

Design

The study contained a 1x3 between-subjects design with the type of explanation as one independent variable that consisted of three levels (no explanation – *how* explanation – *why* explanation) resulting in three conditions. Respondents were randomly assigned to only one of the three levels of the independent variable in an online questionnaire, which can be found in the appendices (Appendix 1).

Instruments

The three dependent variables that form persuasiveness involving the attitude towards the ad, the attitude towards the behavior, and the intention to implement the behavior were

measured using questionnaire structures that were developed by Fishbein and Ajzen in their 'reasoned action approach' (2010). The questionnaire was divided into three sections.

The variable attitude towards the advertisement was measured with eight items on a seven 7-point semantic differentials scale ranging from Completely disagree (score: 1) to Completely agree (score: 7), each item starting with the phrase "I think this advertisement is…" and was followed by the differentials, "bad – good" , "unpleasant – pleasant", "harmful – useful", "boring – interesting", "unwise – wise", "ineffective – effective", "inconvenient – convenient", and "unclear – clear". Cronbach's alpha resulted as satisfactory for the attitude, $\alpha = .86$.

Secondly, the attitude towards the behavior described in the advertisement was measured with seven items on a 7-point semantic differential scale ranging from Completely disagree (1) to Completely agree (7). Each item began with "Using less plastic is…" and was followed by the same differentials as in the first variable attitude towards the ad, with one exception, namely the differential "unclear – clear" being left out. Again, Cronbach's alpha was reliable, $\alpha = .85$.

In the last section, the intention to implement the behavior in the ad was measured with five 7-point Likert-scales ranging from Completely disagree (1) to Completely agree (7). Here, five statements were used: "I am likely to buy less plastic-made products and products wrapped in plastic in the future.", "I plan to use less plastic-made products and products wrapped in plastic in the future.", "I definitely intend to buy less plastic-made products and products wrapped in plastic in the future.", "I will buy environmentally friendly products in accordance with governmental advice.", and "I am willing to advise others to cut down on their plastic consumption. Cronbach's alpha was reliable, $\alpha = .88$.

Procedure

Participants individually filled out an online survey in the online experiment tool Qualtrics, after being recruited by the researchers from the Radboud University. They were approached through social mediums such as WhatsApp and Instagram and were given access to the survey via an online hyperlink. There were three possible randomized versions of the questionnaire, after clicking on the link. The versions differed in the type of explanation used in the advertisement (no explanation, *how* explanation, or *why* explanation).

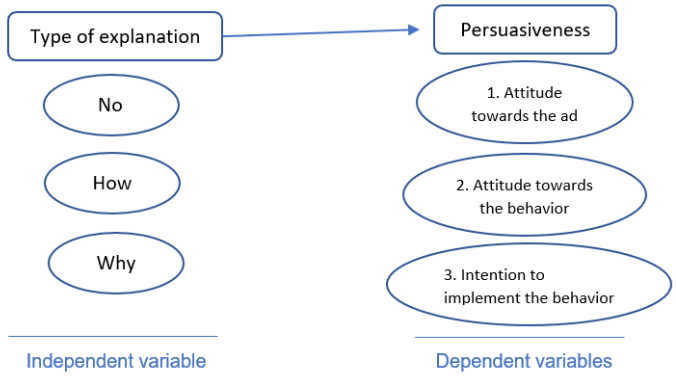
After accessing the link, the respondents were introduced to the background of the study, instructions on how to fill out the questionnaire, as well as their informed consent were asked for. It was indicated that the questionnaire will take approximately 5-10 minutes. The mean length of filling out the questionnaire was M = 3.85 min (3 min and 51 sec, SD = 363.23). Furthermore, participants were told that the study is voluntary, that they can withdraw from the questionnaire at any time, and that the answers are all treated anonymously.

Demographic questions were asked, after which the participants were presented with one advertisement. After seeing the advertisement, the questions for the attitude towards the ad and behavior, and questions for the intention to implement the behavior were asked. Finally, the participants were thanked for their participation. Participants did not receive rewards and for further questions, the contact information was included.

Statistical treatment

To test the effects of the independent variable (type of explanation) on the persuasiveness (attitude and intention) on respondents, one-way analyses of variance (ANOVA) were used in this study.

Figure 1: Analytical model of the present research



Results

A one-way ANOVA with attitude towards the advertisement as a factor for the three types of explanations did not show a significant effect (F (2, 134) = 1.86, p = .160). Table 1 shows the means and standard deviations.

Table 1. Means and standard deviations (in brackets) for attitude towards the ad with type of explanation (1 = low; 7 = high)

	M (SD)	*N*
How explanation	5.29 (1.02)	53
Why explanation	4.92 (1.24)	41
No explanation	4.90 (1.09)	43
Total	5.06 (1.12)	137

Another one-way ANOVA with attitude towards the behavior as a factor for the three types of explanations did not show a significant effect (F (2, 134) = 0.12, p = .889). Table 2 displays the means and standard deviations.

Table 2. Means and standard deviations (in brackets) for attitude towards the behavior with type of explanation (1 = low; 7 = high)

	M (SD)	*N*

How explanation	6.02 (0.90)	53
Why explanation	5.92 (0.96)	41
No explanation	5.99 (1.08)	43
Total	5.98 (0.97)	137

Lastly, a one-way ANOVA with intention to implement the behavior as a factor for the three types of explanations did not show a significant effect as well (F (2, 134) = 0.19, p = .824). In Table 3, the means and standard deviations can be found.

Table 3. Means and standard deviations (in brackets) for intention to implement the behavior with type of explanation (1 = low; 7 = high)

	M (SD)	*N*
How explanation	5.48 (1.13)	53
Why explanation	5.33 (1.20)	41
No explanation	5.42 (0.99)	43
Total	5.42 (1.11)	137

Discussion / Conclusion

The aim of the study was to investigate the effect of different types of explanations (*how*, *why*, and *no* explanation) on the persuasiveness of an advertisement on respondents' attitude towards the ad, attitude towards the behavior, and intention to implement the behavior. The research question consisted of three dependent variables that all fall under persuasiveness. At first, the effect of different types of explanations on the attitude towards the ad was to be investigated, secondly, the attitude towards the behavior, and lastly, the intention to implement the behavior.

Unfortunately, no significant results for each dependent variable could be reported in

the current study. Thus, there was no effect of different types of explanations on the attitude towards the ad, the attitude towards the behavior, and the intention to implement the behavior.

When comparing this finding to other studies, one could say that there mainly was a different context in which persuasiveness was applied. For example, Langer et al. (1978) focused on the compliance to do something with different degrees of requests or without a request. Perhaps, results would be different if participants were exposed to the advertisements when there are different degrees in reasons given for the explanations, e.g., divide weak and strong arguments. When applying strong and weak arguments, one can then also consider the mood that participants are in, as people who are in a bad mood are persuaded more when reading strong arguments than weak arguments (Hullett, 2005).

In the current study, there was a significant relation between participants' English proficiency and the type of explanations, which could have affected the results in the sense that there were too many options available for the level of proficiency in English, giving the participants options that ranged from a beginner to a proficient level of English. Also, there could have been different ways of processing the explanations that were used in the ad. For example, this could be due to several participants being non-native speakers of English or coming from different study backgrounds. Future research could limit the participation to only people who are very proficient in English, while other levels of proficiency are excluded.

Furthermore, results of previous research concerning explanations were mostly retrieved by doing experiments in real-life settings instead of an online survey, as it was the case in the copy machine experiment (Langer et al., 1978), health communication (Parry, 2009), and social interactions (Baranova & Dingemanse, 2016).

Another way to approach this study is to only focus on the native language of a country instead of English. As the participants' figures showed, there were mostly Dutch, German, Vietnamese, and English, while a few people were of another origin. Being from different cultures with different native languages could imply that this affected the English

proficiency of the participants. In future similar studies, one could thus focus on combining different cultures and then run a similar experiment in English. This would be particularly interesting, as previous research showed that collectivistic cultures including mostly Asian countries have a lesser tendency to loaf than individualistic cultures which comprise mostly Western countries (Schultz, 2002). Furthermore, a classification can also be made in terms of attitude towards environmental problems, namely an egoistic, altruistic, or biospheric attitude. Each level of attitude indicates the level of concern, the egoistic level claims that the individual focuses on environmental problems for themselves, the altruistic level suggests that individuals focus on other individuals than themselves, and the biospheric level is about all living things including plants, animals, ecosystems, and the biosphere. Results showed that there is a more egoistic attitude in individualistic, richer countries such as the United States than in collectivistic countries such as Brazil and El Salvador, who scored higher in biospheric.

A limitation of this study could be that no pre-test was done in order to find out what the previous knowledge of the participants is concerning the subject matter, in this case, their knowledge on plastic production. It could have been the case that under the participants there were people who already are actively participating in the behavior which could have affected the persuasiveness because these people would already be familiar with the information given in the advertisements. With the use of a pre-test based on previous knowledge, future studies could thus figure out which arguments can be used to provide new information in order to have an effect on persuasiveness.

One way to approach this pre-test is to do preliminary research, which falls back to the integrative model of behavioral prediction by Fishbein & Yzer (2003). At first, the research would have to identify the most important beliefs that underly the attitude that comes into question for the target group. Based on these beliefs, one can then form the advertisements to fall in line with the target group’s attitude.

It could also be the case that the subject in this study's advertisement concerning the reduction of plastic is in general not persuasive enough for the aim of the study. Furthermore, the lack of persuasiveness could also have occurred due to the design of the advertisements and how the content was made explicit to the viewer. For example, there is a difference in how a persuasive message can be processed, either through central processing or peripheral processing, as it is explained in the dual process model, the Elaboration Likelihood Model by Petty and Cacioppo (1981). While central processing refers to the viewer carefully, critically considering the arguments in a message and thus having a high elaboration, peripheral processing refers to how certain readers only acknowledge parts of a message, suggesting a low elaboration. For people who follow the peripheral route, messages that include rules of thumb can be more persuasive. Rules of thumb that can be considered by the advertiser would be the application of an expert source or choice of colors, for example. Distraction could be seen as a factor that prevents the reader from processing the message centrally, e.g., when reading the message while listening to loud music.

To conclude, even though, there was no effect of different types of explanations on the persuasiveness of an advertisement on respondents, advertisers can still apply the insights from the current study to their designing of advertisements. Specifically, advertisers who focus on changing behavior into more environmentally friendly than before could consider the three levels of attitude (egoistic, altruistic, or biospheric) towards environmental problems. In general, the ELM (Petty and Cacioppo, 1981) can be focused on more intensively when designing advertisements but it is also relevant for future research.

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Appendix

Appendix 1 – The questionnaire (Qualtrics version)

Page 1

Radboud University

Thank you very much for your participation in this study! We are a group of International Business Communication students at Radboud University, and this survey is conducted as part of our Bachelor Thesis research. In this study, you will need to complete a questionnaire, which aims to gather insights towards pro-environmental advertisements. There are no right or wrong answers. All the responses will only be used for scientific research and will be treated anonymously. The questionnaire will take approximately 3-5 minutes to complete.

Should you have any concerns or complaints regarding the survey, please send an e-mail to camiel.hendriks@student.ru.nl.

Your participation in this study is voluntary. Participants have the right to stop the questionnaire at any point. Please confirm that you have been sufficiently informed and give consent to continue with the study by choosing the appropriate option below:

I read the information above and I agree to take part in this experiment

- I agree
- I disagree

I declare that I am 18 or older

- Yes
- No

Page 2

1. My gender is:

- Male
- Female
- Others

2. How old are you?

What is your nationality?

3. The highest degree of education I have completed is:

- No schooling completed
- Elementary school
- High school degree
- Trade/technical/vocational degree
- Bachelor's degree
- Master's degree
- Doctorate degree

4. What is your living condition?

- I live alone
- I live with a partner
- I live with a partner and children
- I live with children without a partner
- I live with my parents
- I live with other housemates (not applicable to any options above)
- Others

5. What is your level of English proficiency?

- Beginner
- Elementary
- Intermediate
- Upper-intermediate
- Advanced
- Proficient

Page 3 (three options were possible for the advertisement)

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Please observe the advertisement carefully and fill in the following questions.

1. I think this advertisement is:

Bad	○	○	○	○	○	○	○ Good
Unpleasant	○	○	○	○	○	○	○ Pleasant
Harmful	○	○	○	○	○	○	○ Useful
Boring	○	○	○	○	○	○	○ Interesting
Unwise	○	○	○	○	○	○	○ Wise
Ineffective	○	○	○	○	○	○	○ Effective
Inconvenient	○	○	○	○	○	○	○ Convenient
Unclear	○	○	○	○	○	○	○ Clear

2. Using less plastic is:

Bad	○	○	○	○	○	○	○ Good
Unpleasant	○	○	○	○	○	○	○ Pleasant
Harmful	○	○	○	○	○	○	○ Useful
Boring	○	○	○	○	○	○	○ Interesting
Unwise	○	○	○	○	○	○	○ Wise
Ineffective	○	○	○	○	○	○	○ Effective
Inconvenient	○	○	○	○	○	○	○ Convenient

3. I am likely to buy less plastic-made products and products wrapped in plastic in the future.

Completely disagree	○	○	○	○	○	○	○ Completely agree

4. I plan to use less plastic-made products and products wrapped in plastic in the future.

Completely disagree ○ ○ ○ ○ ○ ○ ○ Completely agree

5. I definitely intend to buy less plastic-made products and products wrapped in plastic in the future.

Completely disagree ○ ○ ○ ○ ○ ○ ○ Completely agree

6. I will buy environmentally friendly products in accordance with government advice.

Completely disagree ○ ○ ○ ○ ○ ○ ○ Completely agree

7. I am willing to advise others to cut down on their plastic consumption

Completely disagree ○ ○ ○ ○ ○ ○ ○ Completely agree

→

Final page

Radboud University

Thank you for completing this questionnaire!

Your response has been registered.

In case of any questions or concerns please e-mail camiel.hendriks@student.ru.nl

Appendix 2 – Statement of Own Work

CIW English

Statement of Own Work

Student name: Jennifer Groten Steenwelle

Student number: s1018573

Course code and name: Bachelor's Thesis – LET-CIWB351-IBC-2020-SCRSEM2-V

Lecturer: Baranova, J.

Number course group: 2 (Theme)

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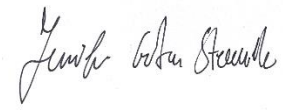
DECLARATION:

I certify that this assignment/report is my own work, based on my personal study and/or research and that I have acknowledged all material and sources used in its preparation, whether they be books, articles, reports, lecture notes, and any other kind of document, electronic or personal communication

Signed: 

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