

Distrust and Argumentation – How they influence the Information- Processing and Persuasiveness of Information

(Bachelor thesis)

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June 2014

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Abstract

The main-question was how information processing and attitude formation differ under trust and distrust and how it is influenced by either a pro- or a contra-argumentation. It was predicted that distrusting people formulate counter-arguments by which they test information against alternative explanations. Further it was assumed that a contra-argumentation would be more persuasive due to a negativity bias. A 2(Source: trust/distrust) x 2(Argumentation: pro/contra) between-subject-designed experiment was conducted to test these hypotheses. The hypotheses could not be confirmed what probably was due to an unsuccessful source manipulation via subliminal priming. It is assumed that this failure stems from a preexisting attitude and therefore a confirmation bias. However, there was some support for the counter-arguments theory from an analysis of thought examples.

Key words: counter-argument, distrust, information processing, contra-argumentation

Introduction

Probably everyone agrees intuitively that they do not generally doubt the information they get from an expert. They probably would also agree that they are more critical when getting information about the same subject from some random person on the street. They would simply judge on basis of that little information (expert or random person on the street) whether they consider the information reliable or not (Chaiken & Eagly, 1989). Several studies confirm that trusting or distrusting a source can lead to different attitudes (Priester & Petty, 1995, 2003). This difference is of special importance in risk communication, in particular in the context of communication between police, other governmental organs and the citizens (Cvetkovich & Löfstedt, 2013; Kasperson, 1986). If these organizations would be better able to reach different groups of people with different attitudes toward them, they could adapt their behavior and communication depending on these differences (Chess, Salomone, & Hance, 1995). In this way some escalations at events like demonstrations or soccer games, but also more generally safety behavior recommendations could be managed and communicated more efficiently and effective. Further, if the government, for example, plans a new behavioral regulation in order to make traffic safer, there would probably emerge a discussion in the media about the advantages, but also the possible disadvantages of the regulation which also has influence on the general opinion of society (Holtz-Bacha, 2013). Accordingly, the governmental institutions would not only have to communicate their plans, but also to react on occurring discussions in public (Gelders & Ihlen, 2010). Therefore the main question to be answered in this study is how the information processing and attitude formation differ under trust and distrust and how it is influenced by either a pro- or a contra-argumentation regarding a regulation proposal of the government.

Theoretical Framework

Trust and distrust are associated with expectations, intentions, affect, and dispositions. This means that trust can be described as the positive assessment of the source's intention and good will, and therefore the expectation that the source will not try to mislead or harm them. Distrust, on the other hand, is associated with a negative assessment of the points above, with the expectation that the source might try to harm them or at least is acting on the basis of differing interests (Lewicki, Tomlinson, & Gillespie, 2006).

Trust and distrust can be seen as bipolar opposites of a single dimension (Jones & George, 1998), but for complex interactions a two-dimensional model where trust and distrust are seen as distinct dimensions of the same construct and where they can vary independently, is seen as more suitable (Lewicki, McAllister, & Bies, 1998). This can easily be explained using the example from the beginning. When getting information from someone who is an expert on one topic, one would expect him to tell the truth about things concerning this topic (Chaiken & Eagly, 1989). But if the same person would be asked on any other topic by which the person becomes the same as any other random person on the street, one would not be as certain anymore whether to expect correct answers. Therefore, it is possible to trust a person with regard to one aspect but distrust him with regard to another (Levi & Stoker, 2000; Lewicki et al., 2006).

Other study results show that it is sufficient to manipulate the attitude toward a person successfully only by very little information (Ambady, Krabbenhoft, & Hogan, 2006; Peracchio & Luna, 2006). They describe it as thin-slice judgments which refer to judgments based on brief expressive behavior within the first 5 minutes. One example of a thin-slice judgment is a brief exposure to a face. People make conclusions about other people's personality traits on basis of their facial appearance (Oosterhof & Todorov, 2008). Further it is shown that priming for 0.1 seconds is already enough to result among other judgments in an assessment of trustworthiness (Willis & Todorov, 2006).

But what exactly happens to your information processing when you either trust or distrust the source? Research indicates that there is a difference in the way the information is processed (Priester & Petty, 1995). It seems that distrusting people increase the elaboration of the messages (Hilton, Fein, & Miller, 1993; Schul, Burnstein, & Bardi, 1996). This difference can be described in terms of the Elaboration Likelihood Model (ELM) of Petty and Cacioppo (1986). In terms of this model, one would argue that distrusting people process the information via the central route whereas trusting people use the peripheral route. One could explain that distrust creates a situation of uncertainty about the reliability of the information and the intentions of the source which then leads to the will to keep the chance of deception as small as possible. Therefore, a distrusting person processes the information using the central route as the person is motivated to prevent deception. In contrast, a trusting person does not suspect deception and therefore has no need to process the information via the effort demanding central route and can process via the

peripheral route. A study of Priester and Petty (2003) supports this theory because the study results showed that trusting people did not build their attitude on the basis of argument strength and relevance but their attitude was reflecting the attitude of the source, whereas distrusting people mainly based their attitude on argument strength.

However, the ELM reaches its limits when trying to explain what exactly the characteristics of a more elaborative processing are. Therefore, another theory is needed to explain the exact information processing. Schul, Mayo and Burnstein (2004) developed a theory for the processing process under distrust. Within this theory, people automatically question any given information by a distrusted source as distrust opens the mind for the possibility of deception. These thoughts are called *counter-scenarios* or *counter-arguments*. They think about incongruent information, e.g. in form of “what if”-scenarios in which the given information would be false in order to test the information against alternative explanations. An important characteristic of incongruent thoughts is that people have difficulty to distinguish which information really was given and which is created by oneself what makes it difficult to willingly ignore their influence and also indicating that this process is to a great extent an unconscious process (Schul, Burnstein, & Bardi, 1996).

Although the recipient of information generates the counter-arguments himself, they can be seen as additional information. This in turn increases the complexity of the information that has to be processed. As the complexity increases, processing the information becomes more demanding which should in turn decrease the perceived processing fluency. It is shown that a high processing fluency elicits positive affect (Koch & Forgas, 2012; Winkielman & Cacioppo, 2001). Accordingly, a more negative attitude of a distrusting person might stem from the decrease in processing fluency. Also Kerling (2012) tested the theory of counter-arguing but could find only some support. He could show that trustworthiness increased the processing fluency and a more positive attitude. But he did not find an effect of trustworthiness on the generation of counter-arguments when measuring them indirectly by using reaction times on opposing statements. Kerling (2012) argues that the method to measure counter-arguments was insufficient in the study. He recommends measuring the content of counter-arguments in order to develop better statements for the indirect measurement of counter-arguing. Therefore this study will try to explore their content.

The other variable of interest in this study is the argumentation and its effects on attitude formation. Previous research focused on the interaction of trust and argumentation strength or ambiguity (de Vries, 2009; Hosman, Huebner, & Siltanen, 2002; Priester & Petty, 2003; Willers, 2010) or the number of arguments (Chaiken, 1980). However, all studies used only a pro-argumentation for the product or subject chosen for their study. The effects might differ, if the information a person receives is actually arguing against something.

Therefore, within this study, argumentation refers to an argumentation either supporting or opposing a course of action, rule or the like. Most research, however, focused on pro- and contra-arguing with regard to the prior attitude of the person and not the subject itself (Haddock, Rothman, Reber, & Schwarz, 1999; Mercier & Sperber, 2011; Taber & Lodge, 2006). One study that did actually test the difference of pro- and contra-arguments concerning political policies found out that contra-arguments had a bigger impact than pro-arguments (Cobb & Kuklinski, 1997). Arguments of politicians arguing against a planned regulation were more persuasive than arguments for the regulation. This effect is explained by the differing influence of positive and negative information (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Price, 1996; Rozin & Royzman, 2001). Pro-arguments stress the possible positive outcomes of the planned regulation whereas contra-arguments focus on possible negative consequences compared to the status quo (Cobb & Kuklinski, 1997). Most people tend to prefer the avoidance of losses to the realization of gains which makes negative information more valuable than positive information as the former helps avoiding losses (Hilbig, 2009, 2012; Kahnemann & Tversky, 1979; Isen, Nygren, & Ashby, 1988). This phenomenon to weigh negative information more than positive, is called *negativity bias* or *negativity effect* (Kanar, Collins, & Bell, 2010; Siegrist, Cousin, & Frei, 2008; Skowronski & Carlston, 1989).

In the context of governmental risk communication, one interesting moderating factor of the negativity bias was found. It seems that the perceived severity of the potential hazard and its probability to occur moderate the influence of the negativity bias. White and Eiser (2005) showed that in the context of low-risk hazards the negativity bias can be moderated, giving occasion to conclude that if the perceived severity of the potential hazard is seen as comparatively small, the risk can rather be accepted. Within this study, the effects of trust in the source and argumentation will be tested in the context of a legislative proposal that wearing a helmet when riding the bike becomes obligatory. Although the probability to

occur is quite small as statistics show that in Germany (where the study was conducted) only 1.7 cyclists die per million km (Flippek, 2011), the possible negative consequences are severe.

Taking together all the considerations from above, it is reasonable to assume that the trust one has in the information source and the argumentation both independently influence the final attitude toward a subject. But when taking together both variables they will probably also interact. As already described in more detail, a manipulation of trust in the source will probably lead to different attitudes in the way that trusting people process the information less critical. Therefore, they will be more likely to agree with the opinion of the source information. In contrast, distrusting people are more likely to question the given information and according to the tested theory, they do this in the form of counter-arguments. This probably results in more moderate attitudes since the counter-arguments should weaken the position of the given information, especially as it seems to be difficult to distinguish between own thoughts and the information given. The attitude might also be more moderate because of the extra effort used to process the incoming information and by this decreasing the perceived processing fluency. This leads to the first hypotheses to be tested:

H1: Participants in the trust conditions will have extremier attitudes toward the planned regulation (strong support/strong opposition) than the participants in the distrust conditions, respectively in agreement with the position of their text.

H2: Participants in the distrust conditions will report significantly more counter-arguments than participants in the trust conditions.

H3: Participants in the distrust conditions will perceive a significantly lower processing fluency than the participants in the trust conditions.

Further, people will probably get persuaded from both argumentations, but as it was found in the study of Cobb and Kuklinski (1997), the contra-arguments will be more persuasive than the pro-argumentations. This will be caused by the tendency to prefer the avoidance of losses to the realization of gains. Hence, the attitude formation toward the regulation will be biased. Moreover, the stronger persuasiveness of the contra-argumentation might have a moderating effect on the generation of counter-arguments. That means that people under distrust will be reading the text less critically. This leads to the last hypothesis, now concerning the additional effect of the argumentation:

H4: Participants reading the pro-argumentation will differ more in their attitude depending on whether they trust or distrust the source than when reading the contra-argumentation.

This means that participants within the distrust-contra condition will agree more with their texts than the participants within the distrust-pro condition. That then results in a smaller difference to the attitude of the participants in the trust-contra condition as the trust conditions are generally expected to agree more with their texts than the distrust conditions.

Method

Participants and Design

The experiment was conducted with 105 participants and using a 2(Source: trust vs. distrust) x 2(Argumentation: pro vs. contra) between-subject design. Hence, there were four conditions to be compared to which the participants were equally and randomly assigned using a block randomization with 12 participants per block. This means that the random assignment to one of the four conditions was always conducted in a block of 12 participants. Doing so, every 12 participants each condition is assigned three times. The exact distribution over the experimental conditions is presented in table 1. Further, all participants were native Germans and conducted the test in German. The educational background differed, but 80% were either undergraduate (49.5%) or had graduated from university (30.5%). From all participants 50 were female and between 18 and 62 years old. ($M = 33.62$, $SD = 14.94$), the 55 male participants were between 18 and 61 years old ($M = 31.04$, $SD = 14.52$). Further, there was no difference found over the four conditions in the reported average cycling frequency ($M = 4.10$, $SD = 1.80$) and the times they actually wear a helmet when cycling ($M = 2.05$, $SD = 1.86$) both rated on a scale from 1(= never) to 7 (= always) (compare figure 1 and 2). The participation was completely voluntarily and not rewarded. The study was conducted within two weeks.

		Argumentation		Total
		Pro	Contra	
Source Manipulation	Trust	27	26	53
	Distrust	26	26	52
	Total	53	52	105

Table 1. Distribution of the participants over the four experimental conditions.

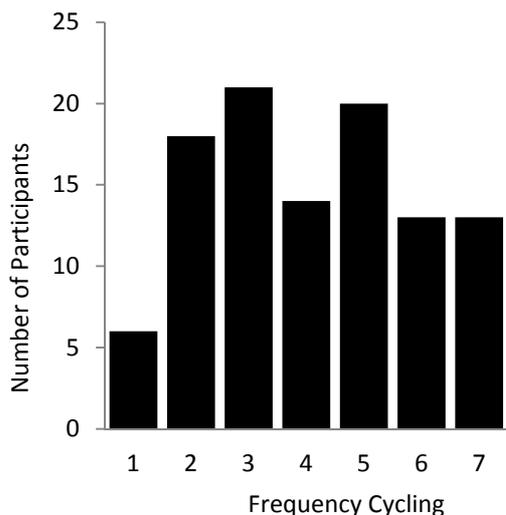


Figure 1. Distribution of Participants over the frequency of cycling.

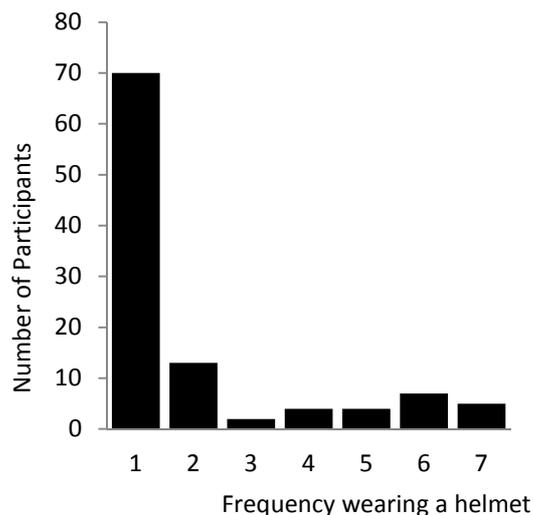


Figure 2. Distribution of Participants over the frequency of actually wearing a helmet.

Procedure

For participation in this study, the participants used a computer and were sitting alone in a quiet room. They could work at their own pace as they had to click a button in order to switch to the next screen. All respondents were given a short introduction in which they were told that the aim of the study was a better understanding of people's attitude formation. Then they were asked for some personal data. Afterwards, they should imagine the following scenario: the government was planning a new regulation and a journalist was now interested in the opinion of the citizens. Further they were instructed to carefully read an informational text of the journalist about the planned regulation that was about to occur on the screen, but they were asked to read it only once. After getting this instruction, the respondents saw a clock in the middle of the screen which was followed by the subliminal source manipulation. A subliminal prime was used to manipulate the source. For 0.1 seconds, they either got to see a picture of a face judged as specifically trustworthy or a face judged to be exactly the opposite depending on their assigned condition. For the manipulation, the most extreme faces from the study of Oosterhof and Todorv (2008) were used (examples of the faces are shown in figure 3) as these specific faces were tested as valid for a subliminal trustworthiness manipulation (de Vries, 2009). Schul et al. (2004) further show that even when not aware of being suspicious, the distrust influences the information processing nevertheless and that the source of distrust itself needs not necessarily be the message itself. Therefore, subliminal priming via a face was used in order

to manipulate the participants unconsciously and avoid an influence of knowing the purpose of the study.

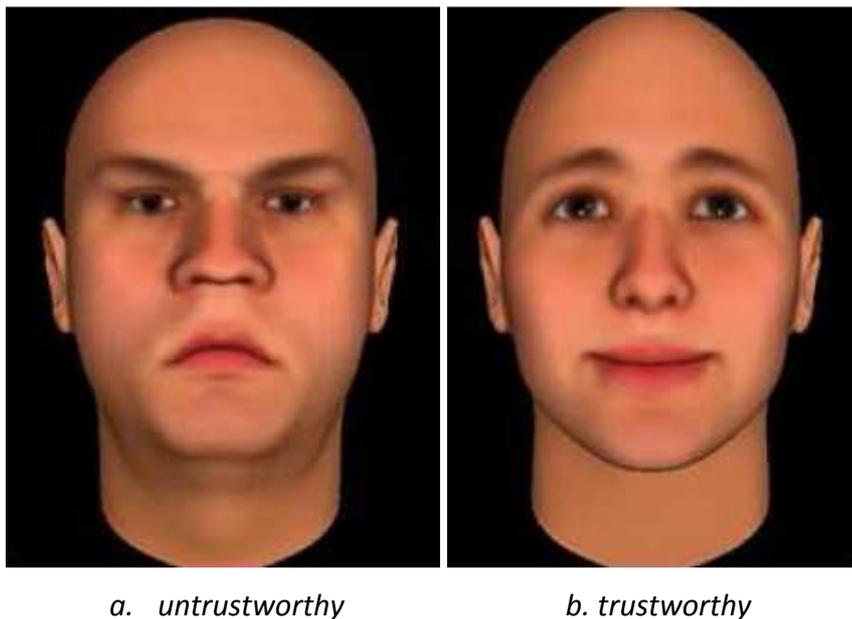


Figure 3. Extreme Faces of the Trustworthiness Dimension (Oosterhof & Todorov, 2008)

Immediately after the source manipulation the participants saw the informational text. Depending on their assigned condition, the respondents either got a text with arguments supporting the regulation to wear helmets when cycling or arguments against this regulation. Thus, by differing the content and argumentation of the text the argumentation variable was manipulated. The texts consisted of five arguments. The wording and content of the arguments was changed as little as possible (e.g. “The government argues that adult bicyclists would mostly assess the risk of injuries during cycling too small.” – “Critics argue that adult bicyclists would mostly assess the risk of injuries during cycling realistically.”; all arguments are presented in Appendix A). Apart from that, to keep the text more credible, one of the five arguments was supporting the opposite view. As they had finished reading, the respondents could switch to the next screen. The time the respondents needed to read the text was measured by the program in milliseconds. Afterwards the following constructs were measured using a questionnaire: Processing Fluency, Attitude toward planned Regulation, Source Credibility, Message Credibility, Counter-Arguments, and Actual Cycling Behavior. In the end, the participants were informed that they were not told the exact aim of study and were asked whether they had an idea what the real purpose of the study was.

If they indicated that they had an idea, they were asked what they thought what the real purpose was. But none of the participants knew it. On the last screen the participants were debriefed and informed about the priming, the theory of counter arguments and the pro- and contra-argumentation. In figure 4, the flow of the participants through the experiment is summarized.

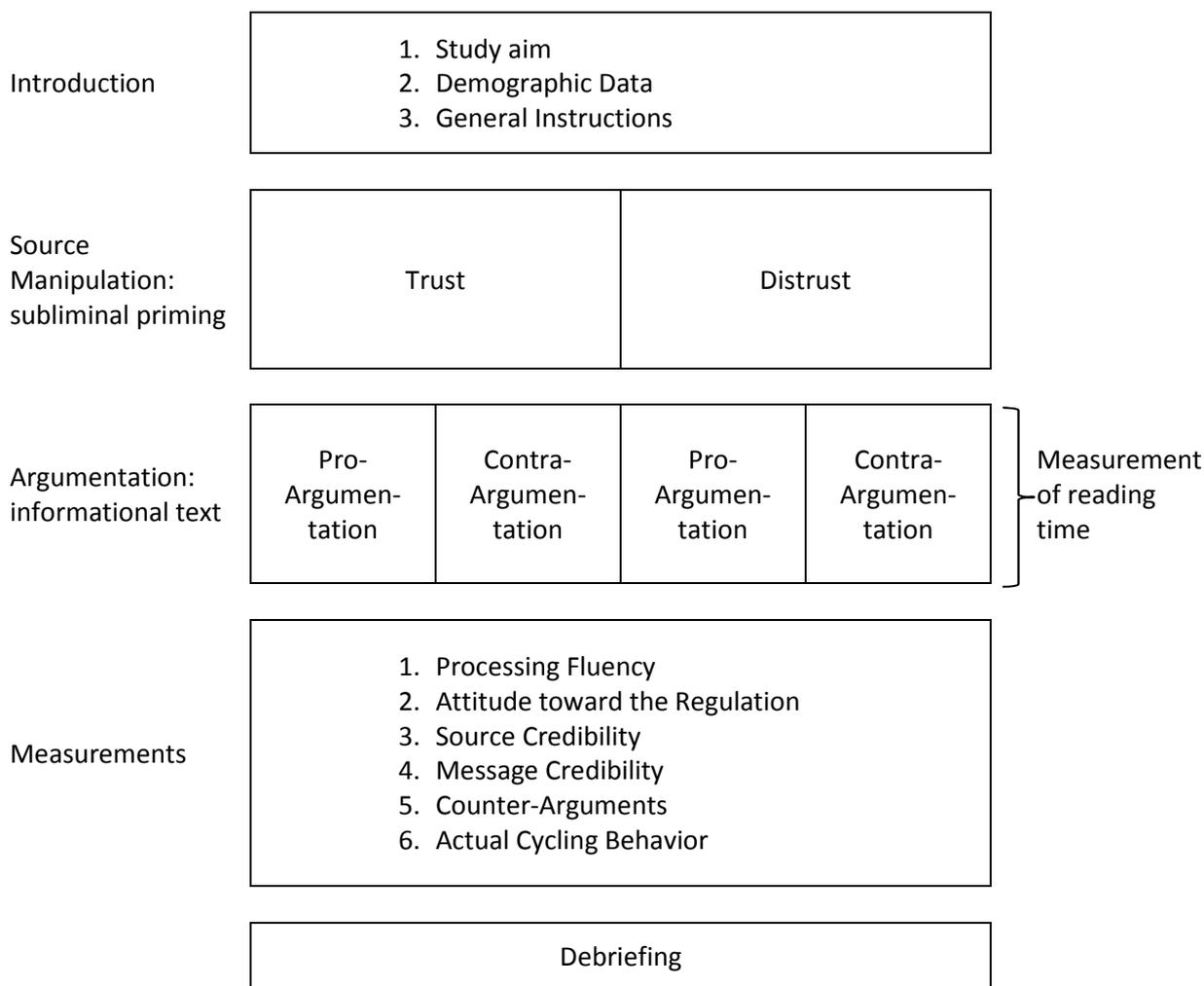


Figure 4. Flow of the participants through the experiment

Measurements

Processing Fluency.

The perceived processing fluency was measured by 9-items with an answer range from 1 to 7 (1 = total disagreement to 7 = total agreement) based on Ellen and Bone (1991) (items are listed in Appendix B). The construct reached sufficient reliability ($\alpha = .80$) and was therefore analyzed by using the average score over all items per participant. Further, Processing Fluency was measured by comparison of the reading times.

Attitude toward planned Regulation.

Based on the attitude measurement in the work of Kerling (2012), five 7-point Likert scales were used. These were composed of the following opposite adjectives: good/bad, positive/negative, useful/useless, effective/ineffective, and valuable/worthless. The construct was also sufficiently reliable ($\alpha = .91$) and was therefore analyzed by using the average scores per participant.

Source Credibility.

Source Credibility refers in the context of this study to the trustworthiness of the journalist. Based on the results of factor-analysis regarding Source Credibility, this construct was measured using 6 items of the highest loading scales (Giffin, 1967): reasonable/unreasonable, objective/subjective, correct/incorrect, open-minded/closed-minded, skilled/unskilled, and informed/uninformed. Each pair was presented to be judged on a 7-point Likert scale. As the construct was reliable ($\alpha = .82$), average scores over all items were used for further analysis.

Message Credibility.

To measure the Message Credibility 5 items were used (Hallahan, 1999; Wang, 2006). The scale consisted of the following items: not informative/informative, not trustworthy/trustworthy, inaccurate/accurate, not persuasive/persuasive, and unreliable/reliable. The participants could answer on a 7-point Likert-scale. Also this construct was reliable ($\alpha = .88$) and average scores over all items were used for further analysis.

Counter-Arguments.

After measuring the constructs above, the participants were asked to judge whether the text of the journalist was for, against or neutral toward the planned regulation. Based on the method of Tormala, Falces, Briñol, and Petty (2007) the counter-arguments were measured. This measurement consists of two questions. First, it is explained what counter-arguments are ("It is possible that you had thoughts differing from the text while reading it. Hence, any thoughts that did not match with the statements of the text."), followed by the question to estimate the frequency of such thoughts on a scale from 1 to 7. Then the second question follows, asking for an estimation of the exact number of these thoughts. This is an only moderately explicit method to measure counter-arguments as the participants do not have to formulate "what-if"-theses as in other methods, but only have to estimate the

frequency and number of incongruent thoughts. This way it is avoided that the participants think consciously about possible incongruent thoughts. Nonetheless, it still assumes that the formulation of counter-arguments takes place consciously.

Participants were additionally asked to give some examples of their incongruent thoughts as it was done in the study of de Vries (2009). Afterwards, for the exploratory analysis of the counter-argument content, two study-unrelated evaluators were asked to categorize each of the given examples of incongruent thoughts into one or of the following categories: (a) Regulation Supporting Thought, (b) Regulation Opposing Thought, (c) Neutral Thought about the Regulation, (d) Association of a similar Law, (e) Personal Experience, (f) Thought concerning the Journalist, (g) Thought concerning the Information Presentation, and (h) Completely unrelated Thought. The two evaluators agreed on most of the cases ($\kappa = .86$). In case of disagreement, the evaluators exchanged their point of views and decided together. The categories (d) to (h) were added after the data collection because it was not expected that thoughts would be reported that do not fall into one of the first three categories.

Results

Statistical Analysis

A series of analyses of variance were conducted in order to test for possible main- or interaction-effects. Before interpreting the results of the *F*-test, the significance of Levene's test for testing equality of error variance was checked to be greater than .05 to make sure that there was no significant difference. If the significance level was less than .05, the significance level of the *F*-test was set to .01 and will be specifically mentioned (Pallant, 2007). Further, when conducting a MANOVA, the multivariate normality was checked in advance and evaluated on basis of the Mahalanobis distance values. Only if the critical value measured was less than the corresponding critical value given in Pallant (2007), further analysis was conducted.

For the exploratory study part on the valence of counter-arguments, a series of Chi-Square tests was conducted in order to test for differences in the distribution of thoughts over the categories depending on the experimental condition.

Manipulation check

In order to check whether the Source manipulation was successful, a two-way ANOVA was done with Source and Argumentation as independent variables and Message Credibility

as dependent variable. Unfortunately, the main-effect of the Source manipulation onS Credibility failed to reach significance ($F(1, 101) = 0.691, ns.$). The power of this test, however, was only .14. The main-effect of Argumentation did reach significance ($F(1, 101) = 7.705, p < 0.01$). Participants in the pro-argumentation condition rated the Source Credibility higher ($M = 4.24, SD = 1.02$) than participants in the contra-argumentation condition ($M = 3.65, SD = 1.16$). Using Cohen's (1988) criterion, the effect size ($\eta^2 = 0.07$) can be classified as medium. The interaction-effect of source and argumentation did not reach significance ($F(1, 101) = 0.62, ns.$).

Processing Fluency

A MANOVA was conducted to explore the impact of Source and Argumentation on perceived processing fluency and reading time. When looking at the results of the Levene's Test of Equality of Error Variances, the significance of the Processing Fluency was smaller than .05. Against the prediction of $H3$, there was no main-effect of the Source on the Processing Fluency ($F(2, 100) = 1.43, ns.$), but there was a main-effect of Argumentation ($F(2, 100) = 5.63, p < 0.01$). When looking on the between-subjects effects, only the effect of perceived processing fluency remained significant ($F(1, 101) = 11.372, p < 0.01$). As it can be seen in figure 4, people reading the pro-arguing text perceived a higher processing fluency ($M = 5.01, SD = 0.13$) than people reading the text against the regulation ($M = 4.39, SD = 0.13$). Using Cohen's (1988) criterion, the effect size ($\eta^2 = 0.10$) can be classified as medium. The interaction-effect of Source and Argumentation on Processing Fluency failed to reach significance ($F(2, 100) = 1.44, ns.$).

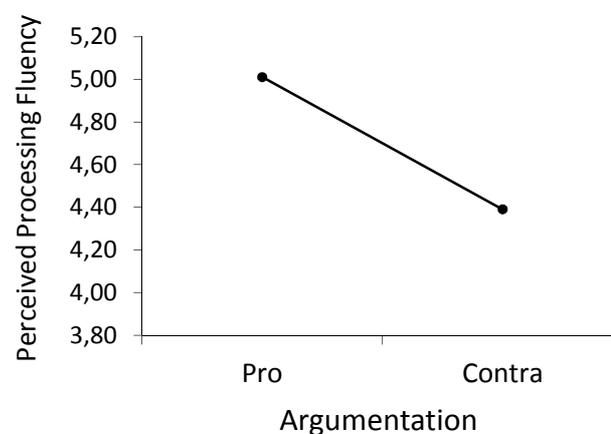


Figure 4. Average Perceived Processing Fluency as a function of Argumentation.

Counter-Arguments

The results of another MANOVA with Source and Argumentation as dependent variables and the frequency of counter-arguments and the estimated exact number of counter-arguments as dependent variables show that there was no significant main-effect of the Source on Counter-Arguments ($F(2, 100) = 1.30, ns.$). Thus, *Hypothesis 2* could not be confirmed. Neither did the main-effect of Argumentation on Counter-Arguments reach significance ($F(2, 100) = 0.02, ns.$). Also the interaction-effect failed to reach significance on Counter-Arguments ($F(2, 100) = 0.93, ns.$). Therefore, *H4* could neither be confirmed.

Results of the exploratory part of the analysis on the content of counter-arguments show that 22 participants reported that they had no incongruent thoughts at all of which 13 were assigned to one of the distrust conditions. This leaves 83 participants reporting incongruent-thoughts, but only 66 of them (62.86% of all participants) actually wrote down at least one example. Table 2 sums up the reported numbers of thoughts within each category and broken down by the four experimental conditions.

		Experimental Condition				Total
		Trust		Distrust		
		Pro	Contra	Pro	Contra	
Thought Category	Regulation Supporting	9	4	2	8	23
	Regulation Opposing	1	8	10	9	28
	Neutral toward Regulation	9	8	4	3	24
	Similar Regulation	2	4	2	2	10
	Own Experience	2	3	1	2	8
	Concerning the Journalist	1	1	3	5	10
	Concerning the information presentation	3	5	6	4	18
	Completely unrelated	14	19	19	1	53
	Total	41	52	47	34	174

Table 2. Distribution of the thought-examples over content categories and experimental conditions.

When looking at the results it is remarkable that within the trust conditions, the participants seem to report more thoughts that support the position of their texts ($N = 17$) than that they report thoughts that are opposing it ($N = 5$). The opposite seems to be the

case in the distrust conditions. In order to test whether this difference between the number of thoughts that were in line with the text and the thoughts that disagreed with the position of the text was significant, several Chi-Square-tests were conducted. For all tests only the categories (a) Regulation Supporting Thought and (b) Regulation Opposing Thought were used for the analysis. First, it was tested whether the number of reported thoughts differed over all four conditions and reached significance ($\chi^2 (3, n = 51) = 12.76, p < 0.01$). Then it was tested when the two trust conditions and the two distrust conditions were each taken together and tested again for independence. The results of the Chi-Square test of independence (with Yates Continuity Correction) reached again significance ($\chi^2 (1, n = 51) = 6.31, p < 0.05$). After that, a series of one-sample chi-square tests were conducted in order to test the significance of the difference for each condition. The test results confirmed a difference for both trust conditions together ($\chi^2 (1, n = 22) = 6.55, p = 0.01$). Thus, the participants in the trust conditions reported significantly more thoughts that were in line with the position of their text ($N = 17$) than thoughts against the position ($N = 5$). However, when testing for both trust conditions separately, only the pro-argumentation condition reached significance ($\chi^2 (1, n = 10) = 6.40, p = 0.01$). The difference in the trust-contra condition failed to reach significance ($\chi^2 (1, n = 12) = 1.33, ns.$). For both distrust conditions taken together, the difference failed to reach significance ($\chi^2 (1, n = 19) = 0.47, ns$). Neither did the difference of the distrust-contra condition alone reach significance ($\chi^2 (1, n = 17) = 0.06, ns.$). Nonetheless, the difference within the distrust-pro conditions did reach significance ($\chi^2 (1, n = 12) = 5.33, p < 0.05$). In contrast to the difference within the trust conditions, participants within the distrust-pro condition reported more thoughts against the position of the text ($N = 10$) than thoughts in line with the position ($N = 2$). In summary, participants in the trust conditions reported significantly more thoughts supporting the position of their reading texts than thoughts opposing it. In contrast, participants in the distrust-pro condition reported significantly more thoughts opposing the texts position than thoughts supporting it.

However, it should be noted that of all thoughts reported, only 53.45% of them were really topic related, if the categories (a) Regulation Supporting Thought, (b) Regulation Opposing Thought, (c) Neutral Thought about the Regulation, (d) Association of a similar Law, and (e) Personal Experiences are taken into account. When defining counter-arguments as thoughts disagreeing with the text, only 5.4% of the topic related thoughts

were counter-arguments in the trust conditions. In the distrust condition, 19.4% can be defined as counter-arguments. In contrast to the previous results on the reported scale on the frequency of counter-arguments, these findings support *H2* as the difference here reaches significance ($\chi^2 (1, n = 23) = 7.35, p < 0.01$). Participants in the distrust conditions actually did report significantly more counter-arguments ($N = 18$) than the participants within the trust conditions ($N = 5$).

Attitude toward planned Regulation

In order to test for effects of the Source and Argumentation on the Attitude toward the planned Regulation, another two-way analysis of variance was conducted with the independent variables Source and Argumentation and the Attitude toward the planned Regulation as dependent variable. The main-effect of Source on the Attitude toward the planned Regulation ($F (1, 101) = 0.03, ns.$) and the main-effect of Argumentation on the Attitude ($F (1, 101) = 0.72, ns.$) were not significant. Also the interaction-effect failed to reach significance ($F (1, 101) = 0.00, ns.$). Therefore, *H1* and *H4* are not confirmed by the study results. However, it is remarkable that all average attitudes toward the regulation were less than four, indicating a general negative attitude toward the regulation (compare table 3) as it was measured on a scale ranging from 1 to 7.

		Argumentation					
		Pro		Contra		Total	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Source Manipulation	Trust	3.33	1.38	3.59	1.67	3.46	1.52
	Distrust	3.38	1.65	3.65	1.85	3.51	1.74
	Total	3.35	1.51	3.62	1.75	3.49	1.63

Table 3. Average Attitude toward the Regulation and standard deviation as a function of Source and Argumentation

Message Credibility

Another two-way ANOVA was conducted to explore the impact of Source and Argumentation on Message Credibility. The results confirmed a main-effect of Argumentation ($F (1, 101) = 6.04, p < 0.05$). Using Cohen's (1988) criterion, the effect size ($\eta^2 = 0.06$) can be classified as medium. The pro-argumentation conditions scored significantly higher ($M = 3.96, SD = 0.18$) than the negative argumentation conditions ($M = 3.34, SD = 0.18$). Nonetheless, both means are less than four and therefore show that the participants

seemingly had a negative impression of the Message Credibility in general. The results did not confirm a main-effect of the Source ($F(1, 101) = 0.01, ns.$) or an interaction-effect ($F(1, 95) = 0.84, ns.$) on the Message Credibility.

Discussion

Overall, the hypotheses could not be confirmed. All hypotheses predicted main-effects of the Source manipulation or interaction-effects of the Source manipulation and the Argumentation. The reason that they did not reach significance probably stems from the fact that a successful manipulation of the source could not be confirmed in the first place. This could be caused by several factors: (a) the chosen method to manipulate, (b) the measurement used to check the success of manipulation, or (c) other variables had also an influence on trust.

That the chosen method for manipulation was insufficient itself is unlikely as exactly the same method was successfully used in several other studies (de Vries, 2009; Kerling, 2012; Oosterhof & Todorov, 2008; Schul, Mayo, & Burnstein, 2004; Willers, 2010; Willis & Todorov, 2006). But it is a method that probably has only a small effect on the perceived trustworthiness of the source and why therefore other probably disturbing factors have to be eliminated.

In order to say whether the measurement of Source Credibility was insufficient it should be tested again. The measurement was based on a small selection of high-loading scales from a study of Giffin (1967). However, there was no pre-test done to test whether the chosen items were actually the best fitting. Although the reliability was absolutely acceptable ($\alpha = 0.82$), it is not possible to make any conclusions on its validity for the specific purpose of this study, to measure the trust of the participants in the source. The fact that the results of the exploratory part actually confirmed the second hypothesis (participants in the distrust conditions reported more counter-arguments than participants in the trust conditions) strengthens the assumption of an insufficient measurement but successful manipulation as it confirms a difference between the groups.

But also the third explanation, namely the other variables influencing trust, probably played an important role. One variable might be the texts themselves. A series of participants reported incongruent thoughts about the information presentation and most of them were critical notes. For example, some participants said that they were missing

statistical information or references about where the information of the journalist was coming from or that they perceived the text as chaotic and missed the connection between the arguments (all thoughts are listed in Appendix C). This gives rise to the assumption that the text itself had influence on Source and Message Credibility. This assumption finds support in the average scores on Message Credibility which were below the neutral level of four. Also in other studies it was shown that information is judged as more or less trustworthy on basis of the content and the information presentation (Bråten, Strømsø, & Salmerón, 2011). Thus, the manipulation of the source via subliminal priming might be destroyed or no longer measurable due to the influence of the text. Further, it might explain why *H3* was not confirmed, why there was no effect of the source manipulation on the processing fluency, as many participants perceived the reading as clumsy and strenuous no matter their assigned condition.

In addition to the influence of the text, it is reasonable to assume that the participants had preexisting attitudes toward the subject. Unfortunately, this was not measured directly within the study, but is also supported by the reported thoughts. Some participants report that either themselves or people they personally know had accidents and were lucky to wear a helmet and others just report that they had discussed exactly the same subject only a week ago or that they had recently read or seen a report on that subject. This might also explain why *H1* and *H4* could not be confirmed, thus why there was no effect of the source manipulation on the Attitude toward the Regulations or an interaction-effect of Source manipulation and Argumentation. In fact, it might explain why there was no significant difference found between the attitudes at all. In line with the fact that most participants always ride the bike without wearing a helmet (66.67%) the average Attitude toward the Regulation to wear a helmet was below four and therefore negative. Several studies show that preexisting attitudes do have a moderating influence as people have the tendency to rather belief arguments supporting their preexisting attitude (Poortinga & Pidgeonm, 2004; Schulz-Hardt, Frey, Lüthgens, & Moscovici, 2000; White, Pahl, Buehner, & Haye, 2003). This tendency is called confirmation bias (Chaffee, Saphir, Graf, Sandvig, & Hahn, 2001) and can be explained in the term of Festinger's (1957) theory of cognitive dissonance. People try to avoid dissonances and therefore prefer congruent information. In order to test whether the findings really were due to a confirmation bias, it would have been necessary to check for preexisting attitudes and should therefore be done in future research.

However, some effects were significant. First, participants within the pro-argumentation conditions perceived the source as more credible than the participants within the contra-argumentation conditions. Furthermore, the participants reading the pro-argumentation also judged the message credibility higher than the contra-argumentation reading participants. A similar effect was found in the study of White and Eiser (2005) where risk-reducing policies had a positive influence on general trust as such policies help avoiding accidents and therefore losses (Kahnemann & Tversky, 1979).

Another confirmed main-effect of Argumentation was found on the Processing Fluency. Participants reading the pro-argumentation perceived a higher processing fluency compared to the participants reading the contra-argumentation. This could be explained in terms of trust and the ELM (Priester & Petty, 1995, 2003). As mentioned before the pro-argumentation seems to have had a positive effect on the source and message credibility assuming a higher perceived trustworthiness. Therefore, according to the ELM it can be processed using the less demanding peripheral route and by this it might increase the processing fluency (Koch & Forgas, 2012). However, further research would be necessary to really confirm this assumption.

An important insight from the exploratory study was that only about half of the reported thoughts were actually topic-related and even less could be defined as counter-arguments. This suggests that many participants did not really understand the purpose of the questions on counter-arguing which then might explain why no significant effects of the manipulations could be found on the frequency of counter-arguments. There is no big difference in the number of reported thoughts in general; therefore it is only logical that the effects remained non-significant. That the participants seemingly did not exactly understand the questions on counter-arguing in the way it was intended, might also explain why previous studies failed to find support for the theory of counter-arguments (Kerling, 2012; Willers, 2010). However, the number of actual counter-arguments when analyzing the examples differed depending on the source manipulation and supported *H2*. Participants in the trust conditions reported fewer counter-arguments than the participants in the distrust conditions. Moreover it turned out that the participants primed to trust were not only reporting fewer counter-arguments, but were reporting more thoughts that actually supported the position of their text. However, these results should be analyzed carefully as

the thoughts that got analyzed are only a sample consciously chosen by the participants. Further, a lot of thoughts that were categorized as neutral might have been meant in a supporting or opposing way toward the regulation, but were written down in only a few words or posed as questions without an answer (e.g. “how people look wearing helmets in general” or “Would I wear a helmet if it was an regulation?”). These neutral thoughts were not taken into account in the analysis as it was impossible to be certain about their valence, maybe they would have changed the analysis.

One last aim of the study was to get more insight in the content of counter-arguments. When taking into account only the thoughts that can be defined as counter-arguments, it is remarkable that the argument that was counter-argued most was the destroyed hairstyle and that within both argumentation conditions. This was probably the weakest argument of all and the fact that it was counter-argued most would therefore support the theory that weak or ambiguous arguments are especially prone to be rejected (Hosman, Huebner, & Siltanen, 2002; Willers, 2010; Ziegler, Dobre, & Diehl, 2007). Further do the participants not only name arguments given in the text, but think about own arguments. This might be interesting for the development of new measurements of counter-arguments as this is something more difficult to predict than simply testing for opposite arguments as it was done by Kerling (2012). Especially, if the subject is controversial the arguments for or against may be very differing in their context. For example when discussing the installation of safety cameras the pro-argumentation might focus on risk-reducing aspects whereas a contra-argumentation would focus more on privacy issues. Counter-arguments could then also differ in these ways.

Another interesting aspect was that some participants did report questions concerning the exact circumstances of the regulation (“Which statistics do exist about accidents caused by bad sight due to wearing a helmet and the feeling of invulnerability from wearing a helmet?”) which now were often categorized as neutral thoughts as they are only considerations that might influence their final attitude but without an answer they cannot be judged to either be in line with or against the information. However, they are still thoughts that test the information of the text.

The last point that will be mentioned concerning the content of counter-arguments is the report of thoughts concerning similar regulations. Most of these reports were not formulated in a judging way (e.g. “wearing a helmet when skiing is normal by now”,

“obligatory wearing of seat belts”). This suggests the possibility that people search for similar situations in order to have a basis where they can build their opinion formation on, thus a strategy to make the processing process less demanding. In terms of the Heuristic-Systematic Model this can be described as (unconscious) searching for cues for a heuristic processing (Chen & Chaiken, 1999). Like the additional arguments, this should be considered when developing new measurements of counter-arguments as it seems that also similar situations are used to test the information for alternative explanations or arguments.

Two strong points about the experiment should also be mentioned. First of all, the age of the participants differed a lot, but the distribution over the conditions was equal. This increases the generalizability of the results as the sample covered different groups. The second point is that most of the participants had no psychological background as it is the case in a lot of other experimental studies. This also increases the generalizability of the findings. Because of the impossible conclusions concerning the source manipulation it does at least increase the generalizability of the effects of the argumentation. To make conclusions concerning the influence of trust and distrust on the information processing and the attitude formation, further research with improved measurements is necessary.

However, all these explanations of the non-significant results already point out the limitations of this study. First, the missing measurement of preexisting attitudes regarding the chosen subject made it almost impossible to draw conclusions and to find really grounded explanations for the results found. If it was intended to eliminate an influence of preexisting attitudes, a pilot-study would have been necessary to test the chosen subject in advance or at least it should have been part of the measurements to be able to interpret the findings in the light of the participant’s attitudes. Second, the informational text should have also been tested in advance to make sure that it is perceived as “good to read” and that the text itself does not provoke distrust concerning the given information. Probably it would have been better to use a longer text with connection passages between the arguments. Also statistical framing (Hilbig 2009, 2012) could be used to present the arguments as a series of participants within this study mentioned this as a reason to not believe the arguments. Although some of the participants mentioned that they were missing references this should probably be avoided as it would also manipulate the trustworthiness of the information source. Also the validity of the measurement scale to test the source manipulation needs to be tested as it is otherwise hard to say whether the non-significant

results were due to a manipulation failure or whether the hypotheses really have to be reconsidered.

References

- Ambady, N., Krabbenhoft, M.A., & Hogan, D. (2006). The 30-sec sale: Using thin-slice judgments to evaluate sales effectiveness. *Journal of Consumer Psychology, 16(1)*, 4-13.
- Baumeister, R.F., Bratslavsky, E., Finkenauer, C., & Vohs, K.D. (2001). Bad is stronger than good. *Review of General Psychology, 5(4)*, 323-370.
- Bråten, I., Strømsø, H.I., & Salmerón, L. (2011). Trust and mistrust when students read multiple information sources about climate change. *Learning and Instruction, 21(2)*, 180-192.
- Chen, S., & Chaiken, S. (1999) The heuristic-systematic model in its broader context. In S. Chaiken, & Y. Trope (Eds.), *Dual-Processing Theories in Social Psychology* (pp. 73-96). New York, New York: Guilford Press.
- Chaiken, S. (1980). Heuristic versus systematic information processing and the use of source versus message cues in persuasion. *Journal of Personality and Social Psychology, 39(5)*, 752-766.
- Chaiken, S., & Eagly, A.H. (1989). Heuristic and systematic information processing within and beyond the persuasion context. In J.S. Uleman, J.A. Bargh (Eds.), *Unintended Thought* (pp. 212-252). New York, New York: Guilford Press.
- Chaffee, S.H., Saphir, M.N., Graf, J., Sandvig, C., & Hahn, K.S. (2001). Attention to counter-attitudinal messages in a state election campaign. *Political Communication, 18(3)*, 247-272.
- Chess, C., Salomone, K.L., & Hance, B.J. (1995). Improving risk communication in government: Research priorities. *Risk Analysis, 15(2)*, 127-135.
- Cobb, M.D., & Kuklinski, J.H. (1997). Changing minds: Political arguments and political persuasion. *American Journal of Political Science, 41(1)*, 88-121.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, New Jersey: Lawrence Erlbaum Associates.
- Cvetkovich, G. & Löfstedt, R.E. (Ed.). (2013). *Social Trust and the management of risk*. London, England: Routledge.
- de Vries, B.J.H. (2009). "Looks can be deceiving" – The moderating effect of face-trustworthiness on the relation between argument strength and persuasiveness of online-content. (Unpublished master's thesis). University of Twente, Enschede.
- Ellen, P.S., & Bone, P.F. (1991). Measuring communication-evoked imagery processing. *Advances in Consumer Research, 18(1)*, 806-812.
- Festinger, L. (1957). *A Theory of Cognitive Dissonance*. Stanford: Stanford University Press.
- Flippek, R. (2011). Dichtung und Wahrheit – Unfälle und ihre statistischen Folgen. *ADFC Radwelt, 6*, 16-19.

- Gelders, D., & Ihlen, Ø. (2010). Government communication about potential policies: Public relations, propaganda or both?. *Public Relations Review*, *36*(1), 59-62.
- Giffin, K. (1967). The contribution of studies of source credibility to a theory of interpersonal trust in the communication process. *Psychological Bulletin*, *68*(2), 104-120.
- Haddock, G., Rothman, A.J., Reber, R., & Schwarz, N. (1999). Forming judgments of attitude certainty, intensity, and importance: The role of subjective experiences. *Personality and Social Psychology Bulletin*, *25*(7), 771-782.
- Hilbig, B.E. (2009). Sad, thus true: negativity bias in judgments of truth. *Journal of Experimental Social Psychology*, *45*(4), 983-986.
- Hilbig, B.E. (2012). How framing statistical statements affects subjective veracity: Validation and application of a multinomial model for judgments of truth. *Cognition*, *125*(1), 37-48.
- Hilton, J.L., Fein, S., & Miller, D.T. (1993). Suspicion and Dispositional Inference. *Personality and Social Psychology Bulletin*, *19*(5), 501-512.
- Holtz-Bach, C. (2013) Government communication in Germany: Maintaining the fine line between information and advertising. In K. Sanders, & M.J. Canel (Eds.), *Government Communication. Cases and Challenges* (pp. 45-58). London, England: Bloomsbury.
- Hosman, L.A., Huebner, T.M., & Siltanen, S.A. (2002). The impact of power-of-speech style, argument strength, and need for cognition on impression formation, cognitive responses, and persuasion. *Journal of Language and Social Psychology*, *21*(4), 361-379.
- Isen, A.M., Nygren, T.E., & Ashby, F.G. (1988). Influence of positive affect on the subjective utility of gains and losses: It is just not worth the risk. *Journal of Personality and Social Psychology*, *55*(5), 710-717.
- Jones, G.R., & George, J.M. (1998). The experience and evolution of trust: Implications for cooperation and teamwork. *Academy of Management Review*, *23*(3), 531-546.
- Kahnemann, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, *47*(2), 263-292.
- Kanar, A.M., Collins, C.J., & Bell, B.S. (2010). A comparison of the effects of positive and negative information in job seekers' organizational attraction and attribute recall. *Human Performance*, *23*(3), 193-212.
- Kasperson, R.E. (1986). Six proposition on public participation and their relevance for risk communication. *Risk Analysis*, *6*(3), 275-281.
- Kerling, P. (2012). Wantrouwen en argumentatie – hoe goede argumenten tot negatieve effecten kunnen leiden. (Unpublished master's thesis). University of Twente, Enschede.
- Koch, A.S., & Forgas, J.P. (2012). Feeling good and feeling truth: The interactive effects of mood and processing fluency on truth judgments. *Journal of Experimental Social Psychology*, *48*(2), 481-485.
- Levi, M., & Stoker, L. (2000). Political trust and trustworthiness. *Annual Review of Political Science*, *3*(1), 475-507.

- Lewicki, R.J., McAllister, D., & Bies, R. (1998). Trust and distrust: New relationships and realities. *Academy of Management Review*, *23*(3), 439-458.
- Lewicki, R.J., Tomlinson, E.C., & Gillespie, N. (2006). Models of interpersonal trust development: Theoretical approaches, empirical evidence, and future directions. *Journal of Management*, *32*(6), 991-1022.
- Mercier, H., & Sperber, D. (2011). Why do humans reason? Arguments for an argumentative theory. *Behavioral and Brain Sciences*, *34*(1), 57-74.
- Oosterhof, N.N., & Todorov, A. (2008). The functional basis of face evaluation. *PNAS*, *105*(22), 11067-11092.
- Pallant, J. (2007). *SPSS survival manual: A step by step guide to data analysis using SPSS for Windows*. Maidenhead, England: McGraw-Hill Education.
- Petty, R.E., & Cacioppo, J.T. (1986). *The elaboration likelihood model of persuasion* (pp. 1-24). New York, New York: Springer
- Poortinga, W., & Pidgeonm N.F. (2004). Trust, the asymmetry principle, and the role of prior beliefs. *Risk Analysis*, *24*(6), 1475-1486.
- Price, L.J. (1996). Understanding the negativity effect: The role of processing focus. *Marketing Letters*, *7*(1), 53-62.
- Priester, J.R., & Petty, R.E. (1995). Source attributions and persuasion: Perceived honesty as a determinant of message scrutiny. *Personal and Social Psychology Bulletin*, *21*(6), 637-654.
- Priester, J.R., & Petty, R.E. (2003). The influence of spokesperson trustworthiness on message elaboration, attitude strength, and advertising effectiveness. *Journal of Consumer Psychology*, *13*(4), 408-421.
- Rozin, P., & Royzman, E.B. (2001). Negativity bias, negativity dominance, and contagion. *Personality and Social Psychology Review*, *5*(4), 296-320.
- Schul, Y., Burnstein, E., & Bardi, A. (1996). Dealing with deceptions that are difficult to detect: Encoding and judgment as a function of preparing to receive invalid information. *Journal of Social Psychology*, *32*(3), 228-253.
- Schul, Y., Mayo, R., & Burnstein, E. (2004). Encoding under trust and distrust: The spontaneous activation of incongruent cognitions. *Journal of Personality and Social Psychology*, *86*(5), 668-679.
- Schulz-Hardt, S., Frey, D., Lüthgens, C., & Moscovici, S. (2000). Biased information search in group decision making. *Journal of Personality and Social Psychology*, *78*, 655-669.
- Siegrist, M., Cousin, M.E., & Frei, M. (2008). Biased confidence in risk assessment studies. *Human and Ecological Risk Assessment*, *14*(6), 1226-1234.
- Skowronski, J.J., & Carlston, D.E. (1989). Negativity and extremity biases in impression formation: A review of explanations. *Psychological Bulletin*, *105*(1), 131-142.
- Taber, C.S., & Lodge, M. (2006). Motivated skepticism in the Evaluation of political beliefs. *American Journal of Political Science*, *50*(3), 755-769.

- Tormala, Z., Falces, C., Briñol, P., & Petty, R. (2007). Ease of retrieval effects in social judgment: The role of unrequested cognitions. *Journal of Personality and Social Psychology, 93*(2), 143-157.
- White, M.P., & Eiser, J.R. (2005). Information specificity and hazard risk potential as moderators of trust asymmetry. *Risk Analysis, 25*(5), 1187-1198.
- White, M.P., Pahl, S., Buehner, M., & Haye, A. (2003). Trust in risky messages: The role of prior attitudes. *Risk Analysis, 23*(4), 717-726.
- Willers, A. (2010). Counter-arguing an online peer: The influence of distrust and message content on accepting online recommendations. (Unpublished master's thesis). University of Twente, Enschede.
- Willis, J., & Todorov, A. (2006). First impressions: Making up your mind after a 100-ms exposure to a face. *Psychological Science, 17*(7), 592-598.
- Winkielman, P., & Cacioppo, J.T. (2001). Mind at ease puts a smile on the face: Psychophysiological evidence that processing facilitation elicits positive affect. *Journal of Personality and Social Psychology, 81*(6), 989-1000.
- Ziegler, R., Dobre, B., & Diehl, M. (2007). Does Matching Versus Mismatching Message Content to Attitude Functions Lead to Biased Processing? The Role of Message Ambiguity. *Basic and Applied Social Psychology, 29*(3), 269-278.

Appendix

A. Argumentation: Pro vs. Contra – Used Arguments

Note: The study was conducted in German. Therefore, these are not the original formulations.

Pro-Argumentation.

The ministry of transport discusses the regulation to wear a helmet when bicycling. The government argues that adult bicyclists would mostly assess the risk of injuries during cycling too small. An regulation to wear helmets is therefore a good way to protect the citizens. The safety of cyclists increases clearly as the risk of head-injuries clearly decreases. Although it would often be claimed that a helmet would decrease the riding comfort as it gets warm under it when it is sunny and as it makes it hard to wear a hood when it is raining. The great risk-reduction does justify the price of a helmet – and then not only the financial price. For example, the way your hair looks after wearing a helmet would leave a positive impression in one's professional life as it is a sign of responsible acting.

Contra-Argumentation.

The ministry of transport discusses the regulation to wear a helmet when bicycling. Critics argue that adult bicyclists would mostly assess the risk of injuries during cycling realistically. An regulation to wear helmets is therefore a violation on the right to self-determination. The safety of cyclists increases hardly as accidents where a helmet really is protecting are happening only rarely. Although it would often be claimed that a helmet would increase the riding comfort as it protects against the sun and the rain. The little risk-reduction does not justify the price of a helmet – and then not only the financial price. For example, the way your hair looks after wearing a helmet which leaves a negative impression in one's professional life.

B. Measurements

Processing Fluency.

1. How far did you find the text consistent? (very little ⇔ very much)
2. I found the text easy to understand. (do not agree at all ⇔ agree totally)
3. In how far did you find the text clear? (totally unclear ⇔ totally clear)
4. The message was obvious. (do not agree at all ⇔ agree totally)
5. The message was vague. (do not agree at all ⇔ agree totally)
6. The message was described in detail. (do not agree at all ⇔ agree totally)
7. The message was weak. (do not agree at all ⇔ agree totally)
8. The message was convincing. (do not agree at all ⇔ agree totally)
9. The message was sharply formulated. (do not agree at all ⇔ agree totally)

C. Reported Thoughts

(In German)

Regulation Supporting Thoughts.

Trust-pro condition.

- Aversion gegen "Haarargument"
- Schutz
- Ich habe mir vorgestellt, dass ein Helm die Frisur nicht beeinträchtigt.
- an einen Unfall einer Frau, die beim Fahrradfahren gestorben ist, weil sie keinen Helm getragen hat.
- Unfall
- Verunglückte Fahrradfahrer
- Gulliarbeiten
- Als von den Vor- und Nachteilen des Helmtragens gesprochen wurde, haben mich folgende Beispiele im Gedankengang überrumpelt: Es sei schwierig, bei Regen eine Kapuze über den Kopf zu ziehen.
- Das oben genannte rechtfertigt den Preis eines Helms. Ich hatte mir vor diesem Argument des Journalisten keine Gedanken darüber gemacht, ob irgendetwas den Preis eines Helms rechtfertigt, oder nicht, da ich den Kauf von Sicherheitshelmen als unumgänglich erachte.

Trust-contra condition.

- verursachte Unfälle schaden der Allgemeinheit hier gilt Gruppen- vor Selbstbestimmungsrecht
- Helmkosten sind im Vergleich zu Unfallkosten geringer.
- Sicherheit ist jedem wichtiger als die Frisur
- Fahrradfahrer können die Gefahr im Verkehr nicht selbst einschätzen, egal wie alt sie sind.

Distrust-pro condition.

- aber auf jeden Fall sicherlich sinnvoll
- Meine Chefin trägt auch immer einen Helm und ist wahnsinnig verantwortungsbewusst

Distrust-contra condition.

- Helmfrisur ist egal
- Helmpflicht ist wichtig
- würde jeder einen Helm tragen, würde man sich nicht so blöd vorkommen
- Helme können Leben retten
- Paula und Maika tragen auch einen Helm
- Das vorherige Argument war im Widerspruch zum folgenden: ein Helm ist sinnvoll, also was soll die Helmfrisur
- Frisur ist doch gleichgültig.

- Die Informationen sind falsch, die errechnen den Schaden an Personen finanziell in den Untersuchungen. Eine schwere Verletzung die vermieden werden kann wegen eines Helms ist sollte auch vermieden werden.

Regulation Opposing Thoughts.

Trust-pro condition.

- Eingriff in die Persönlichkeit

Trust-contra condition.

- zu viele Vorschriften sind nicht sinnvoll
- Ob die Anzahl der durch Fahrradhelme vermiedenen Unfälle gering ist kann nur sehr schwer beurteilt werden, da nicht stattgefundene Verletzungen nicht statistisch erfasst werden. Es ist ja nichts passiert.
- Fahrradhelmpflicht kommt bestimmt aufgrund von Lobbyarbeit der Versicherungsbranche überhaupt in Diskussion, denn die sind ja auch Profiteure und werden mit Sicherheit keine Beitragsätze reduzieren.
- Ach ja, schon wieder eine Vorschrift die die Freiheit der Bürger beschneidet. Müssen wir uns wirklich überall gängeln lassen?
- Ob jemand einen Helm trägt ist doch dessen eigene Sache. Soweit geht die Verantwortung des Staats/Gesellschaft/Gesetzgeber nun wirklich nicht. Eigenverantwortung!
- Ich möchte frei entscheiden ob ich einen Helm trage oder nicht.
- Kommt dann ein Bußgeld wenn jemand ohne Helm Rad fährt oder wird dann der Versicherungsschutz z.B. in der Kranken- oder Unfallversicherung geschmälert oder gar verwehrt?
- und an Regen, vor dem der Helm schützen soll, fand ich lustig

Distrust-pro condition.

- Helmfrisur - stimmt: sieht scheiße aus
- Frisurentöter
- In erster Linie ist sicheres Fahren wichtig und die Beobachtung der anderen Verkehrsteilnehmer!
- ich habe mir überlegt wie bescheuert Helmfrisuren aussehen.
- Motivation statt Pflicht
- wie soll das gesetzt umgesetzt werden? da sich kaum jemand daran halten wird
- Frisur als Zeichen von Verantwortung gegenüber Arbeitgeber??? Da kam der Gedanke Quatsch!
- keine Bevormundung
- Selbstentscheidung
- die Helmfrisur wird auf der Arbeit meist nicht anerkannt

Distrust-contra condition.

- tatsächlich trage ich aber selbst keinen Helm, wenn ich Rad fahre.
- Ich hatte nie das Gefühl durch einen Helm vor Wind und Wetter geschützt zu sein.
- wenige Unfälle, wo ein Helm sinnvoll ist
- Regenschutz => Löcher im Helm
- Helmfrisur sieht doof aus
- Helmpflicht hält vom Fahrradfahren ab

- Herzinfarktrisiko steigt, insgesamt ungesünder
- Helm beim Fahrrad ist mit großem Widerstand bei mir besetzt

Neutral Thoughts about the Regulation.

Trust-pro condition.

- Helmfrisur-> Gesicht...Haarschnitt Mann/Frau
- Fahrradfahren-> Ziel -> Bier -> Biergarten -> Freunde -> Sonne -> Urlaub
- Risiko
- Ich habe mir gedanklich die Frage gestellt wann ich das letzte mal Fahrrad gefahren bin und ob ich dabei einen Helm getragen habe.
- Was sind die tatsächlichen Daten zu den üblichen Fahrradfahrerverletzungen und wie würden sie nachweislich durch einen Helm verändert.
- Welche Zahlen gibt es zu Unfällen, die durch Sichtbehinderung und Komfortbehinderung durch den Helm und durch das Helmtragen induzierte unangemessene "Unverwundbarkeitsgefühl" verursacht werden?
- bisherige Regelung
- eigener Sinn für das Tragen eines Helms
- einen bereits gelesenen Artikel zu dem Thema

Trust-contra condition.

- Fahrradunfall einer Bekannten, die einen Helm trug
- Bedeutung des Wortes Fahrkomfort in Bezug auf den Fahrradhelm
- wie Leute mit Helm generell aussehen
- ich habe mir einen Fahrradfahrer beim Sturz vorgestellt
- ich habe an die Helmfrisur gedacht
- Vorstellung eine Helmfrisur
- Fahrradsturz vorgestellt
- über Kosten eines Helms nachgedacht

Distrust-pro condition.

- kann man den inneren Schweinehund überwinden??
- aber trägt man den Helm dann wirklich
- Warum trage ich nochmal keinen Helm?
- wann soll es dazu kommen?

Distrust-contra condition.

- würde ich einen Helm tragen, wenn es Pflicht wäre?
- Wo soll die Regelung überhaupt eingeführt werden? Straßenverkehr in Großstädten? In ländlichen Regionen?
- ARD Reportage

Association of a Similar Law.

Trust-pro condition.

- Ich habe daran gedacht, wie viele Leute ohne Licht fahren obwohl dass ja bereits Vorschrift ist und entsprechend bestraft wird.
- Motoradhelm

Trust-contra condition.

- Handyverbot

- Rauchverbot
- Helmpflicht bei Motorrollern
- Helmpflicht bei Inlineskatern

Distrust-pro condition.

- An die Anschnallpflicht bei Autofahrern.
- Ich habe kurzzeitig an Motorradhelme und nicht an Fahrradhelme gedacht.

Distrust-contra condition.

- Helmpflicht bei Kindern
- Helm beim Ski fahren ist mittlerweile normal

Personal Experiences.

Trust-pro condition.

- Fahrradunfall in der Familie
- eigenen Erfahrungen

Trust-contra condition.

- Eigene Erfahrungen mit Helmen
- haben das Thema selbst am Wochenende diskutiert
- Mein Gedanke war, dass mich ein Fahrradhelm als kleines Kind vor schweren Schäden am Kopf bewahrt hat und ich daher die Diskussion sehr gut nachvollziehen kann.

Distrust-pro condition.

- Ich habe mich an meinen eigenen Fahrradunfall im letzten Jahr erinnert. Es war das erste Mal, dass ich überhaupt einen Helm getragen hatte. Bin ich damit etwa riskanter gefahren?

Distrust-contra condition.

- haha, da haben wir doch letzte woche noch drüber diskutiert
- Meine Schwester würde heute vielleicht noch leben, Sie ist vor 26 mit 15 Jahren bei einem Fahrradunfall ums Leben gekommen... diese Frage hat mich schwer abgelenkt...

Thoughts concerning the Journalist.

Trust-pro condition.

- das Gesicht am Anfang

Trust-contra condition.

- Gesicht nach der Sanduhr?

Distrust-pro condition.

- was das Gesicht am Anfang vor dem Text zu bedeuten hat
- Warum war kurz vor dem Text ein Kopf eingeblendet?
- Hatte der Kopf eine Glatze?

Distrust-contra condition.

- Das vorherige Argument war im Widerspruch zum folgenden: war der Autor wirklich für oder gegen die Helmpflicht
- Der Journalist ist ziemlich unseriös.
- mich kann er damit nicht überzeugen/ ich vertraue lieber meinen bisherigen Ansichten
- Er vertritt eine ihm vorgefertigte Meinung.
- Glaubte er selber was er schreibt.

Thoughts concerning the Information Presentation.

Trust-pro condition.

- fehlende Schlüssigkeit
- Wechsel zwischen Wichtigem und Unwichtigem
- Helmpflicht zu vage angesprochen

Trust-contra condition.

- falsche Begründung gegen Helmpflicht
- keine stichhaltige Argumentation
- die Statistiken waren nicht überzeugend
- Statistiken sagen nichts über den Einzelfall aus
- sprunghaft

Distrust-pro condition.

- Komische Argumentation mit der "Helmfrisur" als Zeichen von Verantwortungsbewusstsein
- wo waren die quellen bzw. Statistiken, die den Text unterstützen?
- die Anzahl der Befragten des Journalisten war nicht klar formuliert: es kann eine Person oder 100 Personen gewesen sein
- Das letzte Argument (Helmfrisur als Zeichen von Verantwortungsbewusstsein) ist subjektiv und irrelevant für die Diskussion der Vorschrift
- Das letzte Argument (Helmfrisur als Zeichen von Verantwortungsbewusstsein) schürt sinnlose Angst vor Einschränkung meiner Körperlichen Freiheit
- Warum springt der Autor direkt nach der Ansprache der Risikominimierung (was sehr sachlich erscheint) zu einem so scheinbaren schwachen Argument wie dem positiv belegten Erscheinungsbild eines verantwortungsbewussten Radfahrers?

Distrust-contra condition.

- Wen hat er gefragt?
- Blöd aneinandergereiht der Text
- Woher stammen diese Quellen?
- Der Journalist versteht überhaupt nicht wie Statistiken und Unfallrechnungen gemacht werden.

Completely unrelated Thoughts.

Trust-pro condition.

- Und dass ich mein Fahrrad reparieren muss.
- Fahrradhelm = ich würde jetzt gerne auf einem Motorrad sitzen
- Fahrrad fahren = ich sollte zum Sport gehen
- Helm-Frisur = ich muss zum Frisör
- Könnte da eine Falle im Text eingebaut sein?
- Bin ich clever genug, den Text zu verstehen?
- Lese ich vielleicht zu oberflächlich?
- Ich erkenne beim Lesen meine Einstellung. Stimmt das wirklich?
- Angst, dass ich nicht richtig lese
- dass ich meine Brille vergessen habe
- Kies
- Tagesablauf
- Ich habe an meine Matheübung gedacht

- Europawahl

Trust-contra condition.

- Ist der Text wirklich parteiisch?
- Gedanken über die Länge des Textes
- Nach einmaligem Lesen des Textes ist mir nach wenigen Klicks der eigentliche Inhalt der Botschaft entfallen.
- Ich habe mir Sorgen gemacht, dass ich zu dumm oder unkonzentriert sein könnte, einen vermeintlich einfachen Text zu verstehen.
- Ich habe beim Anklicken der nachfolgenden Fragen versucht, eine Linie einzuhalten, z.B. dass ich dem Journalisten eigentlich vertraue, aber ich habe gemerkt, dass ich immer unsicherer wurde, weil ich nicht mehr wusste, was eigentlich der Journalist zu dem Text beigetragen hat.
- Die Unsicherheit beim Anklicken hat immer mehr zugenommen, weil ich zuletzt nur noch instinktiv geklickt habe, eigentlich ohne intellektuelle Kontrolle. Ich hätte eigentlich den Text nochmal lesen wollen, um es besser zu verstehen.
- DFB-Pokalfinale
- Gedanken über das schöne Wetter
- Gedanken über die Uni
- gleich Übung
- Gerede über Mechanik
- Kaffee
- Festivalplanung
- Mathevorlesung
- Hunger
- Geiles Wetter
- Hunger
- Abschlussprüfung
- langes Wochenende

Distrust-pro condition.

- dass ich mal wieder Rad fahren möchte/sollte
- Radwege
- ich habe an eine Umfrage zu e-bikes gedacht die ich zurzeit bei meinem Nebenjob durchführe weil dort auch gefragt wird ob die Leute beim Radfahren einen Helm tragen.
- Sinn des Textes,
- Auf nur einmal lesen konzentriert
- Wo ist hier der tiefere psychologische Sinn in dem Text
- über meine Küche
- Frisör
- Stau
- Gespräche im Nebenzimmer
- Abendplanung
- Urlaub
- An Musik.
- über Sport, der für mich gleich ansteht
- darüber, wie heiß es gerade ist

- Versicherung
- gleich kommt die heute-show
- ich bin total kaputt

Distrust-contradition.

- Freundin