

You are right! Right? A study into selective processing of one-sided news

By

Michelle Wessels (s4212071)

University of Twente

Faculty of Behavioural, Management and Social Science

Master thesis Communication Science - Digital marketing communication

Supervisor:

Prof. Dr. M.D.T. de Jong (1st)

Dr. S.R. Jansma (2nd)

October 25, 2021

I Abstract

Purpose. Previous studies on confirmation bias in news consumption have expressed concern about the current media environment. The increased diversity of news sources has led to an increase in the utilisation of one-sided news sources, resulting in more polarised political opinions. This study investigates whether more pronounced effects of confirmation bias in news consumption occur when individuals are motivated to protect their viewpoint on subjects that reflect their worldview or ego, known as defense motivation. Subsequently, gaining more insights into when and why one-sided news is preferred.

Method. A between-within participants design was used to investigate whether attitude congruence in one-sided Facebook articles caused bias and whether defense motivation enhanced this effect. For the design of four Facebook articles, a pretest of 28 participants selected the relative strongest arguments about current polarising social issues. These Facebook articles were incorporated in an online survey with 316 participants, measuring the impact of attitude congruence (in favour of the article vs against) and defense motivation (yes vs no) on exposure time, personal-relevance, perceived article quality and retention of the articles.

Results. The data revealed participants spent significantly more time reading congruent Facebook articles. In addition, participants considered an article to be significantly more relevant and of better quality if the Facebook article matched their prior opinions. Moreover, defense motivation amplified the impact of attitude congruence on perceived article quality. Nevertheless, there was no relationship between attitude congruence and the retention of the article message.

Conclusion. The findings provide a better understanding of why people consume one-sided political news. Moreover, this study presented the first empirical evidence for defense motivation as an enhancer of selective processing. These findings highlight the relevance of future research on defense motivation as an enhancer of bias in one-sided news consumption, as it hinders individuals from making accurate judgments about the articles they encounter.

Keywords; selective processing, defense motivation, one-sided news, Facebook.

II Table of contents

I Abstract	2
II Table of contents	3
1. Introduction	4
2. Theoretical framework	7
2.2 Interaction effect of defense motivation	10
2.3 Research model	12
3. Methodology	13
3.1 Research design	13
3.3 Research instruments	16
3.4 Validity and reliability	19
3.5 Procedure	21
3.6 Participants	22
4. Results	25
4.1 Impact of attitude-congruence and defense motivation on exposure time	25
4.2 Impact of attitude-congruence and defense motivation on personal-relevance	26
4.3 Impact of attitude-congruence and defense motivation on the perceived article quality	27
4.4 Impact of attitude-congruence and defense motivation on retention	30
5. Discussion	32
5.1 Main findings	32
5.2 Theoretical implications	33
5.3 Practical implications	35
5.4 Limitations and recommendations for future research	36
5.5 Conclusion	38
III References	39
IV Appendices	48
Appendix A Pretest	48
Appendix B Facebook articles	52
Appendix C Survey questions	55
Appendix D Factor analyses	59
Appendix E Overview means and standard deviations	62

1. Introduction

For democracy to succeed, it is essential that people are exposed to news that covers a variety of political views and opinions (Sunstein, 2001). Historically, the traditional media were equipped with the important task of providing accurate, unbiased and independent political news (Society of Professional Journalists, 2014). However, in recent years, the ways in which people can obtain their political information have changed (Moeller & Helberger, 2018). With the rise of the Internet, there are various other news sources to gather political information besides traditional media, such as social media, search engines or editorial websites (Mutz & Martin, 2001; Stroud, 2008). As a result, people today are less dependent on traditional media for their news supply and have more control over their news consumption. However, this increased control has detrimental consequences, since access to a variety of news sources does not mean that consumption patterns are equally diverse. On the contrary, sources that provide one-sided news have flourished, of which Facebook is the most widely used.

One-third of social media users regularly use Facebook as a news source (Shearer & Mitchell, 2021). However, the main purpose of Facebook is not to provide impartial political news but to facilitate users to interact for entertainment purposes. To foster this, Facebook uses self-learning algorithms to filter information and create a news feed that users find entertaining or relevant (Bakshy, Messing & Adamic, 2015; Caplan & Boyd, 2018; Weeks et al., 2017). Consequently, more political news is presented that people *want* to know rather than what they *need* to know to gain a comprehensive and unbiased understanding of a political debate (Sunstein, 2018). This is worrisome, because exposure to partial news can lead to a distorted picture of reality (Hall & Woods, 2017). Moreover, studies found that news consumption on Facebook leads to more ideological polarisation, less tolerance for opposing views and isolation from new ideas, topics and information (Flaxman, Goal & Rao, 2016; Pariser, 2011; Spohr, 2017). Interestingly, however, a study of 50,000 internet users found that Facebook users are still exposed to relatively more content of opposing political views than non-users who receive their news from traditional media (Flaxman et al., 2016). Thus, if Facebook use leads to more ideological polarisation, while there is relatively more exposure to opposing perspectives, a comprehensive understanding is needed of how information on Facebook is perceived. For this reason, the current study investigates if there is a bias in the way polarised individuals process one-sided political news on Facebook.

The theory of cognitive dissonance can provide an explanation on how (political) attitudes can cause bias in information processing (Festinger, 1957). According to the theory, once an attitude is formed, the brain uses this established attitude as an anchor for evaluating new information (Stroud & Choi, 2017). When confronted with new information that contradicts these established attitudes, a psychological discomfort called cognitive dissonance arises. According to the theory, to prevent this feeling of cognitive dissonance, the brain actively tries to avoid attitude-incongruent information and seek attitude-congruent information. This natural tendency for confirmation bias is called selective exposure. Early research on selective exposure in the context of mass communication identified two additional biases that reduce dissonance, namely selective interpretation and selective retention (Klapper, 1960). Selective interpretation is a dissonance-reduction strategy in which incongruent information is interpreted in such a way that (a part of) the message conforms to the existing attitude, for example by discarding the quality or credibility of the incongruent message. Selective retention refers to the ability to remember congruent information better. These selective processes apply to a variety of contexts, but stronger effects occur in political contexts (Hart et.al, 2009).

From the perspective of cognitive dissonance theory, selective processes are attempts to defend prior attitudes, which is closely related to the concept of defense motivation from the heuristic-systematic model of information processing (Liberian & Chaiken, 1992). The heuristic-systematic model is a dual processing model that describes how people receive and process persuasive messages. Liberman and Chaiken (1992) claim that, to minimise cognitive effort, as little information as possible is processed to evaluate a message. To achieve this, information can be processed systematically (attention to all relevant information), heuristically (attention to only a subset of informative cues) or by using both processes simultaneously. The heuristic-systematic model is built on the assumption that individuals are motivated to read accurate and reliable news (i.e., an accuracy motivation). After some critiques, the theory was extended by adding that some individuals are motivated to defend their worldview or self-image (i.e., defense motivation) (Chaiken et al., 1994). The explanation given for this addition was that people can be defense motivated to protect attitudes that are self-definitional. Self-definitional attitudes reflect important aspects of a person's self-image, ego and identity (Katz, 1960; Smith, Bruner, & White, 1956). In case of defense motivation, information is selectively processed to avoid or reduce threats to one's self-image (Darke & Ritchie, 2007; Liberman & Chaiken 1992).

The current study combines the selective processes with defense motivation to measure whether defense motivation serves as an amplifier for selective processing in a political context. The theory of selective processes and defense motivation complement each other. Whereas selective processes explain the different ways in which confirmation bias manifests itself, defense motivation serves as a moderator under which circumstances confirmation bias is expected to be stronger. Only a few empirical studies combine these theories, one of which is in the context of the selective processing of news on Facebook (Winter, Metzger & Flanagin, 2016). The main difference with the study of Winter et al. (2016) is that they instructed participants to exhibit a motivational goal (e.g., accuracy motivation, defense motivation) towards an artificial social debate. The current study focuses on genuine defense motivation to protect attitudes about real polarised social issues. Examining the extent to which defense motivation influences the selective processing of news about social issues on Facebook offers a deeper insight into why and when exposure to congruent news is preferred. Research on this topic is relevant given the importance of exposure to reliable news in a democracy, e.g., for the acceptance of opposing ideological opinions and for building a fact-based political debate (Flaxman, Goal & Rao, 2014; Spohr, 2017; Stroud, 2017). Hence, the following research question will be addressed:

Research question: What is the impact of attitude-congruence on selective exposure, selective interpretation and selective retention of news articles on social issues on Facebook, and does defense motivation enhance the impact?

2. Theoretical framework

In the theoretical framework, the hypotheses and the corresponding research model are presented. First, the expected main effects for attitude congruence on selective exposure, selective interpretation and selective retention are explained. Then, it is explained why an interaction effect for defense motivation on attitude congruence is expected. Finally, the research model serves as a visualisation of the hypothesised relationship between the variables.

2.1 The impact of attitude congruence on selective processes

Selective exposure

Within selective exposure, a distinction is made between the feeling of discomfort from exposure to incongruent information and feeling of arousal from exposure to congruent information (Devine et al., 1999). This methodological distinction is necessary as the latter was found to be a stronger motivator for selective exposure (Chaffee, 2001; Garrett & Stroud, 2009). In the current study, the avoidance of incongruent information to prevent discomfort is hypothesized to impact the exposure time of the article. In addition, the arousal caused by congruent information is hypothesized to impact the article likeability.

Firstly, a positive relationship is expected between attitude congruence and exposure time. As the theory suggests, individuals try to avoid incongruent information to prevent discomfort (Festinger, 1957). Therefore, to reduce discomfort, it is expected that less time is spent on incongruent Facebook articles. This hypothesis is in line with the findings of Knobloch-Westerwick and Meng (2009). In their study, participants were given a selection of articles (congruent and incongruent) and asked to read the news as they usually would. Not only did they find a preference for attitude consistent news, but they also found that among the articles that the participants read, significantly more time is spent reading attitude congruent news. However, some studies failed to find evidence for exposure time (Edwards & Smith, 1996). The lack of evidence for selective exposure can be explained by moderation factors that may influence selective avoidance, for example, attitude confidence (Albarracín & Mitchell, 2004), utility (Knobloch-Westerwick & Kleiman, 2012) and need for cognition (Tsfati & Cappella, 2005). Nevertheless, these moderating factors are not considered to affect the selective exposure to news on Facebook, as Facebook articles can be seen as incidental exposure, which is passive and unintentional. In addition, Hart et al. (2009) found that selective effects are stronger in a political context. Hence, the following hypothesis:

Hypothesis 1a: Attitude congruence has a positive impact on exposure time.

Secondly, attitude congruence is expected to have a positive effect on the likeability of the article. Congruent information is not only easier to process, but it is also more pleasant to read (Garret, 2009). This causes a feeling of excitement when exposed to congruent information (Devine et al., 1999). The likeability of a message is related to positive arousal (van den Berg, Duijnsveld & Smit, 2004). In the context of this research, a news article on a social issue can be considered as feedback on one's attitude. A study into positive feedback in interpersonal communication found that positive feedback influences the likeability of the messenger (Sinclair & Kunda, 1999). Therefore, the arousal experienced from exposure to congruent information is expected to increase the likeability of the article. Which might explain why a survey investigating selective exposure among citizens of the United States revealed a relationship between media choice and ideological preference (Stroud, 2008). Likewise, a relationship was found between political ideology and exposure to like-minded news in an experimental setting (Garett, 2009; Iyengar & Hahn, 2009). Therefore, it is expected that attitude congruent articles are considered more likeable than incongruent articles. Hence, the following hypothesis:

Hypothesis 1b: Attitude congruence has a positive impact on likeability

Selective interpretation

Selective interpretation of congruent or incongruent articles is expected to influence the perceived quality of the article. Mainstream newspapers have an established reputation for their quality of news coverage. On Facebook, however, unknown sources have a platform to disseminate their news. Therefore, it is easier to question the overall quality of an article on Facebook. For this reason, it is expected that the quality of an incongruent article is rated more negatively to reduce dissonance. Consistent with the hypothesis, previous studies have found empirical evidence that pre-existing attitudes cause bias in the way a message is evaluated (e.g., Bastardi et al., 2011; Kruglanski, 1990; Kunda, 1990). In the context of political communication, Kunda (1999) found that the same argument is perceived as stronger when it supports the participants' position than when it disputes that position. Moreover, the credibility of the source of

the incongruent message is questioned (Sinclair & Kunda, 1999). Lord et al.'s (1979) disconfirmation model claimed that if arguments are incongruent to prior attitudes, one will try to contradict the argument to reduce dissonance. In accordance with the disconfirmation model, Ditto and Lopez (1992) conducted a study on non-preferred information. In their study, participants had to rate the quality of medical tests. The results of the medical tests indicated whether the participants had a fictitious defect. However, the participants were not aware that the defect was fake. As a result, the participants that were conditioned with the defect considered the medical test of lower quality. Therefore, if a Facebook article contains non-preferred information, the perceived quality of the article is expected to be lower. Hence, the following hypothesis:

Hypothesis 2: Attitude congruence has a positive impact on perceived article quality.

Selective retention

Attitude congruence is expected to have a positive effect on the retention of the article message. Selective retention happens when congruent information is more easily remembered (Eagly & Chaiken, 1993). The cognitive explanation for selective retention is that the brain associates newly acquired knowledge, experiences, or attitudes with existing ones. These associations form mental structures called schemata (Arbib, 1991; Rumelhart, 1984). Congruent information fits within these schemata and is, therefore, easier to access and recall (Stroud & Choi, 2017). For this reason, a congruent Facebook article is expected to be more memorable. Accordingly, Meffert et al. (2006) examined the selective retention of both positive and negative information about political candidates from a hypothetical election. The results showed that participants remembered more positive information about their preferred candidate and more negative information about opposing candidates. Similar results were found in a study on the attitudes of democrats and republicans towards the war in Iraq. Jacobson (2010) compared surveys that were conducted before and after the invasion of Iraq. Remarkably, evidence was found that prior attitudes not only cause incongruent information to be remembered worse but also lead to misremembering information when someone changes the initial attitudes. For example, before the war, 73% of the democrats believed that Iraq had weapons of mass destruction. During the war, the democrats were confronted with a flood of information that challenged their earlier beliefs. In the post-war survey, only 38% remembered believing that Iraq possessed weapons of

mass destruction. These findings are in line with research by Redlawsk, Civettini, and Emmerson (2010) who found that selective retention is not insensitive to the amount of incongruent information. The more incongruent information participants received about their preferred political candidate, the fewer positive details were remembered. In the Facebook newsfeed, news articles are concise. Therefore, the amount of incongruent information is not expected to influence selective retention. Moreover, Civettini, and Emmerson (2010) found that exposure to a small amount of incongruent information strengthened the memory of positive details about their preferred candidate. Thus, participants who agree with the article are expected to remember the content better than participants who disagree with the article. Leading to the following hypothesis:

Hypothesis 3: Attitude congruence has a positive impact on retention.

2.2 Interaction effect of defense motivation

In this study, defense motivation represents an enhanced dimension of attitude congruence. Therefore, an interaction effect is expected between defense motivation and attitude congruence on selective processes. Although the relationship will be considered, the current study does not assume a main effect of defense motivation on selective processes.

Selective exposure

Defense motivation is expected to amplify the impact of attitude congruence on the exposure time and likeability of the article, as stronger attitudes lead to greater selective exposure effects (e.g., Brannon, Tagler, & Eagly, 2007; Krosnick & Petty, 1995). According to Liberman and Chaiken (1992), someone is defense motivated when new information threatens self-definitional attitudes. Self-definitional attitudes are characterized as high in extremity and certainty (Zunick, Teeny & Fazio, 2017). Similarly, Stroud (2010), examining the relationship between selective exposure and polarisation, claimed that “a polarised individual who is maximally favorable toward a preferred candidate and maximally unfavorable toward a disliked alternative arguably has very high levels of confidence and certainty” (p.559). Thus, polarised individuals can be considered defense motivated, and consequently stronger effects of selective exposure can be expected in defense motivated individuals. Research by Winter et al. found that the reading time for attitude congruent articles was highest for defense motivated participants (2016). In addition, they found that defense

motivation reinforced confirmation bias in participants with a clear opinion in favour or against the subject. Yet these relationships were not significant. Compared to their study, which used artificial subjects to measure selective processes, the articles used in the current study concern real polarising subjects and therefore stronger effects are expected. Hence, the following hypotheses:

Hypothesis 4a: Defense motivation amplifies the positive impact of attitude congruent news on exposure time.

Hypothesis 4b: Defense motivation amplifies the positive impact of attitude congruent news on likeability.

Selective interpretation

Defense motivation is expected to amplify the impact of attitude congruence on the perceived article quality. According to Liberman and Chaiken (1992), defense motivation leads to bias in evaluations of source credibility. Furthermore, Edwards and Smith (1996) found that bias in argument quality is especially pronounced for individuals who indicated high emotional involvement in the issue. This suggests that defense motivation amplifies the selective interpretation. Accordingly, research conducted by Lui (2017) examined the influence of defense motivation and argument evaluation in an experiment in which undergraduates were randomly assigned to high and low defense motivation groups. They created a situation that evoked defense motivation by informing them about increasing fees for undergraduates in the short term (defense motivation) or six years (no defense motivation). The undergraduates with a high defense motivation rated incongruent arguments lower compared to participants with a low defense motivation. Therefore, it is expected that defense motivation also enhances the selective interpretation of the perceived quality of the article. Leading to the following hypothesis:

Hypothesis 5: Defense motivation amplifies the positive impact of attitude congruent news on the perceived article quality.

Selective retention

Defense motivation is expected to enhance the effect of attitude congruence on the retention of the message of the article. Individual attributes such as attitude strength, personal-relevance

and knowledge reinforce selective retention (Stroud & Choi, 2017). This is in line with Berent and Krosnick (1995), who stated that strong and personally important attitudes have highly structured schemas that can store large amounts of attitude-relevant knowledge. In addition, they claim that strong and important attitudes are closely related to one's needs and goals. Thus, it is likely that defense motivation leads to a better recollection of the congruent article message. In fact, Holbrook et al. (2005) had participants watch a political debate on television and found that participants were more likely to remember statements on a personally relevant topic. Therefore, it is expected that self-definitional attitudes lead to greater effects of selective retention. Leading to the following hypothesis:

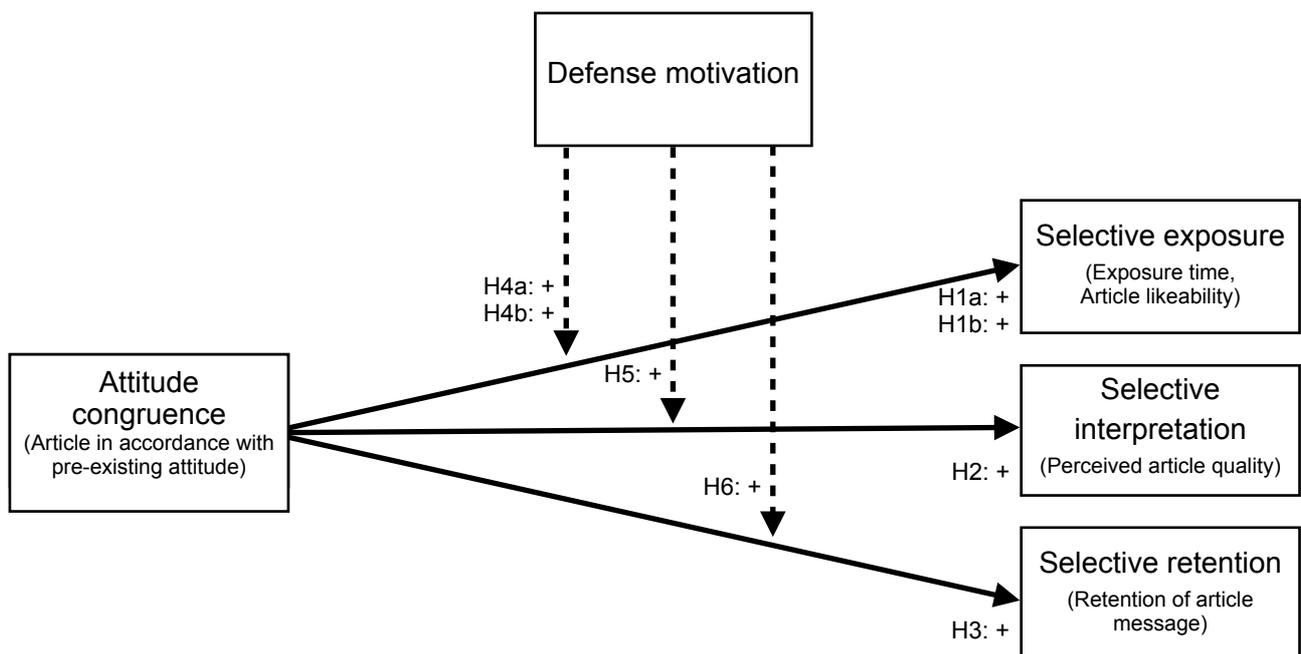
Hypothesis 6: Defense motivation amplifies the positive impact of attitude congruent news on the retention of the article message.

2.3 Research model

The hypothesised relationship between the variables are visualised in Figure 1.

Figure 1

Visualisation of the Themes and Topics



3. Methodology

3.1 Research design

For this study, a “between-within participants design” was used to measure the impact of attitude-congruence and defense motivation on exposure time, likeability, the perceived quality of the article and retention. Four Facebook articles were designed about topical and polarising social issues. An online survey was used to measure whether selective processes are present when individuals read Facebook articles about social issues. A "between-participants design" was used by analysing the differences between the sample group attitude-congruence (in favour of the article vs. against the article) and defense motivation (yes vs. no) concerning the dependent variables. A "within-participants design" was used by showing participants four Facebook articles and having them answer the same set of questions after each of the four Facebook articles. By repeating the measurement four times the chance of making a Type II error was reduced. This study was approved by an ethics committee of the University of Twente.

3.2 Research materials

For this study, four Facebook articles about real social issues were designed. First, the criteria of the social issues were decided upon. After that, the article topics were chosen. Subsequently, a pretest was conducted to measure which arguments were considered the best arguments in favour of the topics. Finally, the Facebook articles were designed, incorporating the best arguments from the pretest.

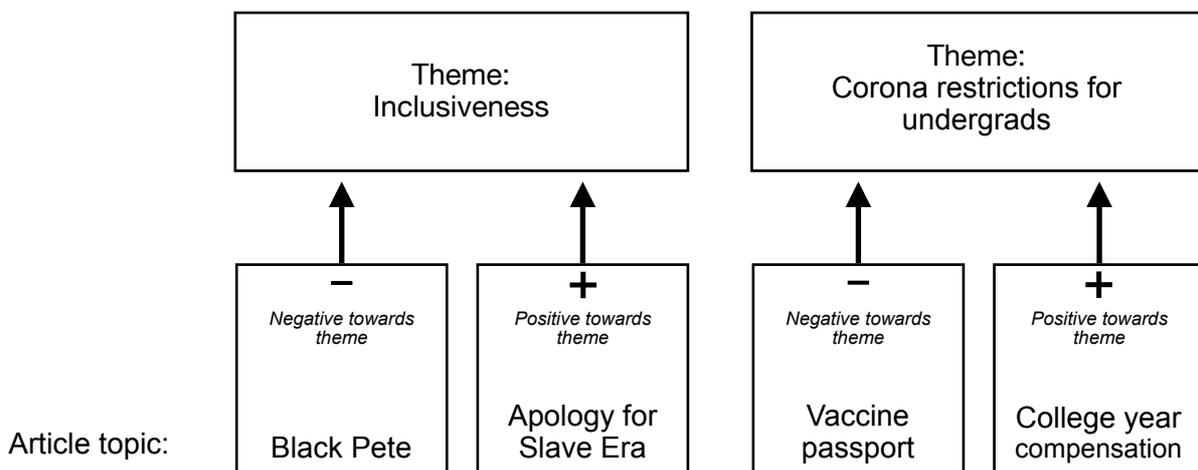
The criteria of the social issue

There were three criteria for determining a social issue. These criteria were established to increase the chance of a balanced sample distribution of attitude congruence (for the article vs against the article) and defense motivation (yes vs no). The first criterion was polarisation. Using polarising social issues increased the likelihood of participants being either for or against the article. The second criterion was topicality. By using topical polarising social issues, the participants were likely familiar with the debate. Familiarity made it more probable that the participants had already established a certain or extreme attitudes towards the social issue, and consequently, that they were defense motivated (Zunick, Teeny & Fazio, 2017). The third criterion was an interrelation between social issues. By using related social issues, it was assumed that

knowing one's attitude towards a polarising social issue can predict one's attitude towards a related social issue. With this in mind, the four articles are divided into two pairs of interrelated topical and polarising social issues that address contrasting viewpoints, see Figure 2. As a result, if a participant agreed with the first article, it was likely that the participant disagreed with the second article. Similarly, the participant would either be defense motivated or not defense motivated in both related articles.

Figure 2

Visualisation of the Themes and Topics



The topics of the Facebook articles

After the criteria for the social issues were established, four suitable article topics were chosen in the selection phase. First, 20 topical and polarising social issues were collected. These were taken from debates in the run-up to the Dutch elections of 2021 and social issues that were in the news. Secondly, for each social issue, its polarising character was further investigated. Statistics on the polarising character of the social issue were taken from online independent Dutch opinion polls. A distribution of 50% ($\pm 10\%$) was accepted as polarising. This left 8 potential article topics. Thirdly, for the remaining social issues, it was determined which social issues were related to each other, so that they could form a pair, see Figure 2. Finally, four fitting social issues were decided upon for the experiment.

The first theme was 'inclusiveness', which included the topics 'Zwarte Piet' (translated to Black Pete) and 'apology for slave era'. The first topic was based on the social debate surrounding Black Pete which is a character from a traditional Dutch holiday. When people dress up as Black Pete, light-skinned individuals paint their faces a dark brown/black. In recent years, there has been debate on whether Black Pete is a racist figure and should be removed from the holiday. Of the Dutch population, 43% think that Black Pete is racist and should therefore be removed or replaced with a non-racist version (Eenvandaag, 2020). Given that one Facebook article needed to be negatively charged towards the theme 'inclusiveness', the article argued that Black Pete should not be removed, see Figure 2. The second topic within the theme of inclusiveness was whether the Netherlands should apologise for its part in the slave era. In recent years, other countries, like the Netherlands, that played a major role in the slave trade have formally apologised for their past. Of the Dutch population, 55% believe that the Dutch state should not apologise for their past (Brassem, 2021). The corresponding Facebook article argued that the Netherlands should apologise.

The second theme was 'corona restrictions for undergrads', which included the topics 'vaccine passport' and 'college year compensation'. The first topic within this theme concerned whether events can start opening up to people who have received their vaccine, even if not everyone in the Netherlands has had the chance to get a vaccine. Overall, 57% of the Dutch people agree with the introduction of such a vaccine passport for events (Zwolsman, 2021). The corresponding Facebook article had to be negative about the corona restrictions for undergraduates and therefore argued that the vaccine passport is fair although younger generations have not yet been vaccinated. The second topic was whether students in the Netherlands should receive a free year of college as compensation for the Corona crisis. There were no statistics available regarding the public opinion on this issue, as it was a very new topic of debate. However, this does show the topicality of the subject. Besides, given the news coverage, it was expected to have a polarising effect. The Facebook article argued that undergrads deserve a free college year.

Pretest

To ensure that the content of the Facebook articles was not biased, e.g. different interpretations of arguments, a pretest was conducted to assess which arguments were the strongest.

Using an online survey, the participants were given ten arguments (derived from news articles) in support of a statement (N=28). For example, the statement for an apology for the slave trade era read "The Dutch state must apologise for its slave-trading past" with one of the ten arguments being "Because apologies are the starting point for further dialogue on racism". The participants were asked to rank these items from strongest argument (1st interval) to weakest argument (10th interval) for each of the four statements.

After collecting the data, the standard deviation and the mean determined the strength of an argument. A standard deviation above 3.0 was considered an ambiguous item and consequently, two ambiguous arguments were removed. The median score of each argument indicated its relative strength. The median score was used as an indicator of strength because it is not sensitive to outliers. The four arguments with the highest median were used in the design of the Facebook article, which all had a median score between $\bar{x} = 6$ and $\bar{x} = 9.5$. All the arguments and their relative strength can be found in Appendix A.

Design of the articles

To design realistic Facebook articles, the mock-up of a Facebook post, the Facebook font and colours were used to design the articles, see Figure 3. Still, some features of realistic Facebook posts were not included in the design such as the source of the article and social cues in the form of likes, shares and comments. Social cues were excluded because studies have shown that these influence one's attitude (e.g. Messing & Westwood, 2014; Winter & Krämer, 2014; Yang, 2016). Nevertheless, a header photo was included since it was assumed that this would not significantly affect the participants' attitudes. All the other designs of the Facebook posts are in the Appendix B.

3.3 Research instruments

The variables were measured using an online survey. How the variables were measured is presented here. The survey questions can be found in Appendix C.

Attitude-congruence (IV)

The independent variable attitude-congruence was measured with one item. The item "the article is in accordance with my personal opinion on the subject" (on a 5-point Likert scale) was constructed to measure whether the Facebook article was consistent with the participant's attitude.

Figure 3

Facebook Post Apology for Slave Era



Translation. 'How racist are we? The Netherlands must apologise for the slave trade. The Netherlands needs to apologise for its slave trade past. In a system where racism is ingrained, apologising for the slave trade would be a good start to combating racism. Our Golden Age was a dark time in our history. If the Netherlands cannot even acknowledge a racist past, how can current racism be addressed. Refusing to apologise further polarises our society, when our government should be trying to unite.'

An intermediate option was provided to later exclude participants with neutral opinions from the analyses. Neutral opinions were excluded from this study because clear opinions were needed to maintain the value of the variable defense motivation. The two extremes were included to give the data additional depth if necessary.

Defense motivation (IV)

The second independent variable was defense motivation. To measure if a participant was defense motivated about their attitude regarding the article, 3 statements were adapted from Zunick, Teeny and Fazio (2017). For example, whether an attitude was self-definitional was measured with the statement "My personal opinion on this article's topic reflects the kind of person I am". The other two statements measured the certainty and the extremity of the attitude. The participants were asked to rate the 3 statements on a 5-point Likert scale. An average score of 3 or higher was accepted as defense motivated.

Exposure time

The dependent variable exposure time was measured by unobtrusively recording how long (in time units) the article was opened on the screen of the participant. The item "Which of these options most accurately reflects how you viewed the Facebook post?" was included as a validation of the recorded time. For this item, five elaborations were given, e.g. "I looked at the post cursorily" and "I read the entire post thoroughly and thought about the arguments."

Likeability

The dependent variable likeability was measured using 5 items on a 5-point scale. For example, the question "What do you think of this Facebook post? uninteresting: interesting" was included. The other items measured the article's pleasantness, relevance, usefulness, and engagement.

Perceived article quality

Similar to likeability, the perceived quality of the article was also measured by 5 items. For example, the question "What do you think about the quality of this Facebook post?" was used with the item moderate viewpoint: extreme viewpoint on a 5 point scale. The other scales measured the bias, seriousness, usefulness and source reliability of the article.

Retention

Finally, four multiple-choice questions were used to measure the dependent variable retention of the Facebook posts, e.g., "What statements are in the Facebook post about Black Pete? more than one answer is possible." Each item provided seven answers of which the participants were free to select as many as they thought were right. Three answers were about the message of the article, of which one was correct. The other four possible answers were about the arguments used in the text, two of which were correct. Thus, for each Facebook post the participant received a score between 0 (= no answers right) and 7 (= all answers right).

3.4 Validity and reliability

Scale construction

Before any data were considered, it was essential to evaluate the construct's validity and reliability (Tavakol & Dennick, 2011). The validity of a construct was assessed by performing a factor analysis (Appendix D). To measure the reliability of a construct, Cronbach's alphas were calculated. An alpha level of .7 or higher is accepted as a reliable construct (Bland & Altman, 1997).

The factor analyses led to new insights, see Table 1. The construct for perceived quality was originally interpreted more broadly. However, the items "unbiased: biased", "lighthearted: serious" and "moderate viewpoint: extreme viewpoint" did not correlate with the other items of the construct perceived quality of the article. This may be because these items focused more on the general attitude of the article, whereas argumentation strength and source reliability are more substantive aspects of quality. However, these items did not constitute a separate construct and were therefore removed from the analyses.

Although the original construct for the perceived quality of the article was narrowed, it was found that the perceived quality of the article was more than just the argument strength and the source reliability. It appeared that the item "unpleasant: pleasant", originally from the construct likeability, correlated with the perceived quality of the article. This may be because the pleasantness of an article can be interpreted differently than experiencing likeability. In the context of this study, pleasantness can be defined as an aspect of quality, e.g., a pleasant writing style, structure or

aesthetic. After moving the item, the construct perceived quality of the article had a mean Cronbach's alpha of .72 across all four measures.

Table 1

Final Constructs and Deleted Items

Construct	Item
Defense motivation	DM. My personal opinion on this article's topic reflects the kind of person I am.
Perceived article quality	QUA. What do you think about the quality of this Facebook post? Weak arguments:Strong arguments
	QUA. What do you think about the quality of this Facebook post? Unreliable source:Reliable source
	LIK. What do you think of this Facebook post ? Unpleasant: Pleasant
Personal-relevance	LIK. What do you think of this Facebook post? Uninteresting:Interesting
	LIK. What do you think of this Facebook post? Boring:Engaging
	LIK. What do you think of this Facebook post? Not useful:Useful
	LIK.What do you think of this Facebook post? Irrelevant:Relevant
Deleted	DM. I have no sympathy for people who think differently on this subject.
	DM. My personal opinion on this article's topic was already established prior to the research.
	QUA. What do you think about the quality of this Facebook post? Lighthearted:Serious
	QUA. What do you think about the quality of this Facebook post? Moderate viewpoint:Extreme viewpoint
	QUA. What do you think about the quality of this Facebook post? Unbiased:Biased

LIK. = Initially an item from the construct likeability. QUA. = Initially an item from the construct perceived article quality. DM. = Initially an item from the construct defense motivation

However, since the item pleasantness had been moved from likeability to the perceived quality of the article, the essence of the construct likeability had changed. All remaining items in the construct appeared to measure a possible benefit from reading the article. Therefore, from this point forward, the construct was considered a measure of personal-relevance. The renamed construct personal-relevance had a mean Cronbach's alpha of .86.

Although the items for defense motivation did correlate in the factor analyses, the construct was not reliable ($\alpha = .41$). Therefore, the variable was analysed with the item measuring self-definitional attitudes. Firstly, because the item self-definitional attitude is closely related to defense motivation (Lieberman & Chaiken, 1992). Besides, the sample distribution of this item was evenly distributed.

Validity of exposure time measure

Since this study measures the variable exposure time in an unsupervised online environment, the measurement needs to be validated. For this reason, the survey included an item in which participants indicated their level of elaboration for each article. Table 2 reveals that the average exposure time in seconds increased in the same ascending order as the self-reported elaborations, except for the most elaborated option. Nevertheless, the shortfall for the most elaborated option is small and can be explained by possible characteristic differences between participants, such as reading speed or comprehension time. Moreover, the exposure time of the *least* elaborated option was, on average, 12.7 seconds faster than the exposure time of the *most* elaborated option. Based on these considerations, the recorded time was assumed to be close to the actual time spent on the article and the exposure time measurement was considered valid.

Table 2

Exposure Time [s] and Perceived Elaboration

Perceived elaboration	Exposure time in seconds			
	Post 1	Post 2	Post 3	Post 4
I looked at the post cursorily.	13.24	12.02	15.88	14.15
I scanned the post and only read relevant information.	19.94	19.09	22.06	15.22
I have read the entire post.	28.56	27.65	25.47	23.26
I have read the whole post thoroughly.	30.18	31.81	27.68	26.09
I read the entire post thoroughly and thought about the arguments.	26.39	28.31	31.07	20.21

3.5 Procedure

The data was collected using an online survey. The Qualtrics software package was used to create and distribute the online survey. Before beginning the survey, participants were asked for their consent and informed that they could withdraw at any time during the survey. Participants who did not give consent were excluded from further participation. For the participants who gave consent, the survey started with an explanation that four articles would be shown and that they were free to read as much or as little of an article as they pleased. Then the first article was presented. The articles were presented in a random order for each participant. All articles were

designed to have a clear stance regarding a polarising and topical social issue. When participants indicated that they were finished reading the article, they were asked a series of questions measuring their attitude-congruence, defense motivation, likeability and the perceived quality of the article concerning the article they had just read. After answering the questions, the second article was shown, repeating the previous process. The exposure time of each article was recorded unobtrusively by monitoring how long a participant viewed an article on their screen. At the end of the survey, after the four articles and the corresponding questions were answered, a final series of questions was given, which measured the retention. Similar to the articles, the retention questions were ordered randomly. Finally, on the submission page participants were thanked for their participation and contact information was provided in case of remaining questions.

3.6 Participants

This study did not distinguish between other demographic characteristics of the participants, e.g., gender, ethnicity, or religion, as it aimed to keep the survey as short as possible to maximise the response rate. Moreover, these characteristics were not within the scope of the study, as they were not expected to have a significant impact. All participants were Dutch-speaking. The survey was conducted in Dutch as this study was based in the Netherlands.

To ensure that all conditions were adequately distributed, the goal was to collect more than 300 valid participants. An appropriate sample size would be achieved by obtaining 25 participants in each condition. A snowball method was used to gather the minimum amount of 300 participants. The snowball method was used by asking the gathered participants to share the link to the questionnaire on their social media, e.g., Whatsapp groups, Facebook stories, Instagram stories and Linked-in posts.

The recruiting period took place between 04-29-2021 and 05-14-2021, in that time n=370 participants started the survey. After finishing the data collection, n=54 responses were excluded of which n=1 did not agree with the terms and n=53 did not finish the questionnaire. In total, N=316 valid responses remained for analyses. The sample distribution is shown in Table 3. The total sample size varies per Facebook post. This is because from the variable attitude congruence, cases were excluded in which participants indicated that their attitude towards the topic of the article was neutral. The reason for this was that clear opinions were needed to maintain the value of the variable defense motivation, hence neutral attitudes were listed as missing.

Table 3*Sample Distribution over the Conditions (N=316)*

	Not defense motivated	Defense motivated	Total
	n	n	n
Post 1			
Prior attitude against	78	71	149
Prior attitude in favour	54	44	98
Total	132	115	247
Post 2			
Prior attitude against	104	35	139
Prior attitude in favour	43	52	95
Total	147	87	234
Post 3			
Prior attitude against	83	64	147
Prior attitude in favour	60	37	97
Total	143	101	244
Post 4			
Prior attitude against	36	13	49
Prior attitude in favour	117	95	212
Total	153	108	261

After reviewing the sample distribution, one Facebook post revealed a problematic sample size, see Table 3. Unbalanced sample sizes make it less likely that the significant differences are correctly identified, thus increase the chance of making a Type I error (Troncoso, Skidmore & Thompson, 2013). In post 4, the condition 'defense motivated and prior attitude against' contained only 13 participants. To ensure validity, the fourth Facebook post was not included in the analyses. Furthermore, the distribution of the two extremes of the 5-point Likert scale for attitude-congruence (completely disagree, completely agree) was not sufficient and therefore not included in the analyses.

Finally, the exposure time variable was analysed for outliers using a boxplot to detect possible measurement errors, i.e. a distraction in the offline environment of the participants. Consequently,

the extreme outliers, thus a value three times in the interquartile range, were removed (in post 1: n = 10, post 2: n = 10, post 3: n = 8).

3.7 Analyses

The data were analyzed using Statistical Package for the Social Science (SPSS). In this study, a p-value of less than 0.05 was accepted as a significant result. Levene's F-test was used, which measures the homogeneity of variance assumption. If the assumption of homogeneity of variance was met, a two-way analysis of variance (ANOVA) was performed to analyse whether there were significant main effects and interaction effects for attitude congruence and defense motivation on exposure time, personal-relevance, perceived article quality and retention. In addition, a partial Eta squared was interpreted for the effect size, whereby a value of .01 denotes a small effect size, .06 a medium effect size and a value of more than .14 a large effect size (Cohen, 1998). However, if the homogeneity of variance assumption was not met, the relationship was examined by performing the non-parametric Welch test. Besides, Cohen's d was calculated as the effect size, with a denotation of .20 for small effect size, .50 for medium and .80 or higher for large effect size (Cohen, 1988). Finally, the means and standard deviations of the significant results determine the direction of a relationship.

4. Results

In this chapter, the results of the experiments are discussed. The hypotheses were measured in four repeated experiments. Consequently, the influence of attitude-congruence and defense motivation on exposure time, personal-relevance, perceived article quality, and retention is presented. Defense motivation was analysed on item level with the item self-definitional attitude. All means and standard deviations can be found in Appendix E

4.1 Impact of attitude-congruence and defense motivation on exposure time

Table 4 shows that attitude-congruence has one significant main effect on exposure time. According to this significant measurement, participants whose attitudes were congruent with the article about the vaccine passport, spent an average of 5.19 seconds more reading the article ($M= 28.98$, $SD = 15.59$), compared to participants whose prior attitudes were in contrast of the article ($M= 23.79$, $SD = 13.33$). This finding is in line with the hypothesis that individuals spend more time reading articles when they agree with the article stance. Yet, despite the significant main effect, the effect size is small. Moreover, the main effect is inconsistent, as attitude-congruence on exposure time did not appear significantly in other Facebook posts.

Table 4

Effects of Attitude Congruence and Defense Motivation on Exposure Time

	Statistics			
	df	F	p	η^2
Attitude congruence				
Post 1: <i>Black Pete</i>	1,236	.916	.339	
Post 2: <i>Apology slave era</i>	1,223	.022	.881	
Post 3: <i>Vaccine passport</i>	1,235	7.98	.005**	.033
Defense motivation				
Post 1: <i>Black Pete</i>	1,236	1.00	.318	
Post 2: <i>Apology slave era</i>	1,223	1.44	.232	
Post 3: <i>Vaccine passport</i>	1,235	.214	.644	
Attitude congruence * Defense motivation				
Post 1: <i>Black Pete</i>	1,236	.232	.630	
Post 2: <i>Apology slave era</i>	1,223	.001	.976	
Post 3: <i>Vaccine passport</i>	1,235	.599	.440	

* < 0.05. ** < 0.01.

In addition to the main effects for attitude-congruence, Table 4 shows the main effects for defense motivation on exposure time. Across all measurements, there appeared to be no significant main effects for defense motivation on exposure time. Thus, it was assumed that whether or not individuals read an article with a defense motivation made no significant difference to their exposure time.

Finally, there were no interaction effects found for exposure time, see Table 4. In this study, when a participant was defense motivated while reading attitude-congruent Facebook articles, it had no influence on the time the participants took to read the article.

4.2 Impact of attitude-congruence and defense motivation on personal-relevance

In the series ANOVA, a Levene's test indicated unequal variances of personal-relevance in the second Facebook post ($p = .007$). Therefore, the ANOVA for the second Facebook post cannot be interpreted and the Welch's test was used for the main effects, see Table 5. The disadvantage of a significant Levene's test is that there is no alternative to measure the interaction effect of the second Facebook post. Hence, the interaction effect was missing for the second Facebook post.

Table 5

Effects of Attitude Congruence and Defense Motivation on Personal-relevance

	Statistics			
	df	F	p	η^2
Attitude congruence				
Post 1: <i>Black Pete</i>	1,246	14.65	<.001**	.057
Post 2: <i>Apology slave era</i>	1,227.4	147.14 ^a	<.001** ^b	.480 ^c
Post 3: <i>Vaccine passport</i>	1,243	2.97	.042*	.017
Defense motivation				
Post 1: <i>Black Pete</i>	1,246	9.13	.003**	.036
Post 2: <i>Apology slave era</i>	1,216.78	34.90 ^a	<.001 ^b **	.072 ^c
Post 3: <i>Vaccine passport</i>	1,243	12.1	<.001**	.048
Attitude congruence * Defense motivation				
Post 1 <i>Black Pete</i>	1,246	.04	.839	
Post 3 <i>Vaccine passport</i> '	1,243	1.42	.235	

^aWelch test statistics. ^bP-value of Welch test. ^cCohen's d.

* < 0.05. ** < 0.01.

The main effect of attitude-congruence on personal-relevance was significant across all measures, see Table 5. Moreover, this main effect had a large effect size in the second Facebook post. Consistent with the hypothesis, participants consider the topic more relevant if the article matches their own opinion than an article with opposing opinions, see Table 6.

Table 6

Means and Standard Deviations of Attitude Congruence and Defense Motivation on Personal-relevance

	Negative		Positive	
	M	SD	M	SD
Attitude congruence				
Post 1: <i>Black Pete</i>	2.82	.96	3.27	.87
Post 2: <i>Apology slave era</i>	2.62	.91	3.91	.72
Post 3: <i>Vaccine passport</i>	3.31	.85	3.50	.88
Defense motivation				
Post 1: <i>Black Pete</i>	2.84	.93	3.18	.94
Post 2: <i>Apology slave era</i>	2.85	1.00	3.63	.95
Post 3: <i>Vaccine passport</i>	3.24	.86	3.59	.84

Similarly, a consistent main effect for defense motivation on personal-relevance was found, see Table 5. In comparison to participants who indicated that they were not defense motivated, being defense motivated toward the article topic appeared to have a positive influence on the personal-relevance of the topic, see Table 6. However, the effect sizes were small, see Table 5.

In contrast to the consistent and significant main effects, no interaction effects were found for attitude-congruence and defense motivation on personal-relevance, see Table 5. Thus, the relevance of the article in the attitude-congruence conditions (in favour of or against the article) was not affected by whether or not the person was defense motivated.

4.3 Impact of attitude-congruence and defense motivation on the perceived article quality

Attitude-congruence showed a consistent significant and strong main effect on the perceived quality of the article, see Table 7. Besides, all measurements had a remarkably high effect sizes. This indicates that if an individual's prior attitude is in line with the article, the perceived quality of

the article is higher than if that individual's prior attitude was incongruent with the article, see Table 8.

Table 7

Means and Standard Deviations of Attitude Congruence on Perceived Article Quality

	Statistics			
	df	F	p	η^2
Attitude congruence				
Post 1: <i>Black Pete</i>	1,246	60.93	<.001**	.356
Post 2: <i>Apology slave era</i>	1,233	106.74	<.001**	.317
Post 3: <i>Vaccine passport</i>	1,243	49.76	<.001**	.172
Defense motivation				
Post 1: <i>Black Pete</i>	1,246	1.85	.175	
Post 2: <i>Apology slave era</i>	1,233	1.45	.231	
Post 3: <i>Vaccine passport</i>	1,243	.23	.636	
Attitude congruence * Defense motivation				
Post 1: <i>Black Pete</i>	1,246	5.34	.022*	.021
Post 2: <i>Apology slave era</i>	1,233	6.84	.009**	.026
Post 3: <i>Vaccine passport</i>	1,243	.4	.529	

* < 0.05. ** < 0.01.

Table 8

Effects of Attitude Congruence and Defense Motivation on Perceived Article Quality

	Negative		Positive	
	M	SD	M	SD
Attitude congruence				
Post 1: <i>Black Pete</i>	2.10	.68	3.11	.69
Post 2: <i>Apology slave era</i>	2.37	.64	3.33	.73
Post 3: <i>Vaccine passport</i>	2.35	.71	3.01	.71

In contrast, the main effect for defense motivation on the perceived quality of the article showed consistent insignificant results, see Table 7. Over all measures there was no indication that being defense motivated has an impact on the perceived quality of the article.

Although defense motivation showed no main effect, interaction effects were found between attitude-congruence and defense motivation on the perceived quality of the article, see Table 7. Figure 4 and Figure 5 revealed that participants who agreed with the article and were defense motivated rated the quality of the article highest. The lowest average score for quality was given by participants who were defense motivated and against the article. In Figure 4, the mean difference between being defense motivated or not was larger if the participants disagreed with the article compared to when they agreed. In this measurement, defense motivation had a greater impact on participants who disagreed with an article. However, in Figure 5, the difference between defense motivation or not was larger when they agreed with the article. In other words, the magnitude to which participants with defense motivation rated the quality of an attitude-congruent article above average, is larger than the magnitude to which they rated the attitude incongruent article below average. Nevertheless, consistent with the hypothesis, defense motivation enhances the effect of attitude-congruence in both directions. However, the effect size of the interaction effects were small, as can be seen in Table 7. Moreover, the interaction effect was not consistent, as the third Facebook post showed an insignificant interaction effect.

Figure 4

Interaction Effect of Defense Motivation and Attitude Congruence on Perceived Article Quality, Post 1

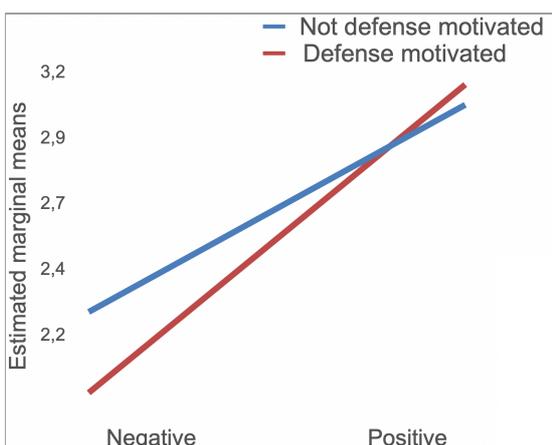
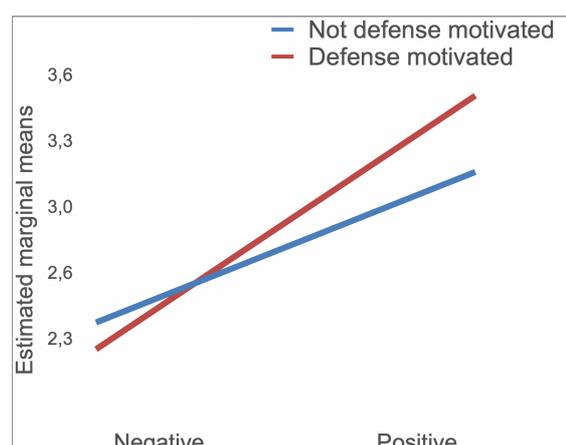


Figure 5

Interaction Effect of Defense Motivation and Attitude Congruence on Perceived Article Quality, Post 2



4.4 Impact of attitude-congruence and defense motivation on retention

For the variable retention, participants could score between 0 (= no answers correct) and 7 (= all answers correct) in a multiple-choice question at the end of the survey. It was expected that participants who agreed with the article were able to recall more of the article than participants who disagreed with the article. However, no main effects were found for attitude-congruence on retention, see Table 9.

Table 9

Effects of Attitude Congruence and Defense Motivation on Retention

	Statistics		
	df	F	p
Attitude congruence			
Post 1: <i>Black Pete</i>	1,246	2.11	.147
Post 2: <i>Apology slave era</i>	1,233	2.2	.138
Post 3: <i>Vaccine passport</i>	1,243	.2	.653
Defense motivation			
Post 1: <i>Black Pete</i>	1,246	.11	.737
Post 2: <i>Apology slave era</i>	1,233	1.8	.181
Post 3: <i>Vaccine passport</i>	1,243	3.05	.082
Attitude congruence * Defense motivation			
Post 1: <i>Black Pete</i>	1,246	1.29	.258
Post 2: <i>Apology slave era</i>	1,233	.281	.597
Post 3: <i>Vaccine passport</i>	1,243	1.25	.264

* < 0.05. ** < 0.01.

Additionally, there were no main effects found for defense motivation on retention, see Table 9. This means that in this study, whether or not participants were defense motivated, did not affect the extent to which they remembered the article.

Finally, attitude-congruence and defense motivation did not reveal a significant interaction effect on retention, see Table 9. Thus, in this study, when participants were defense motivated while

reading attitude-congruent Facebook articles, it had no influence on participants' ability to recall the article content.

5. Discussion

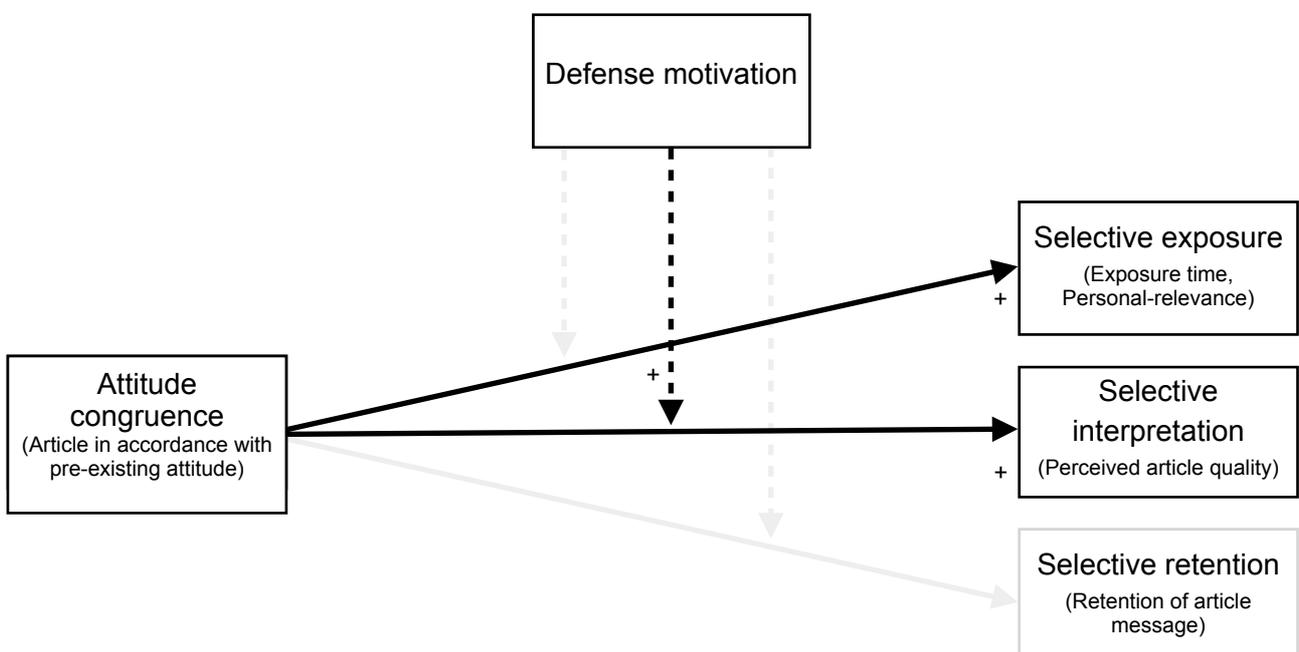
Over the past decades, people have become less dependent on traditional media for their news supply and have gained more control over their news consumption. As a result, sources that provide one-sided news, such as Facebook, have flourished. Subsequently, the consumption of one-sided news has increased today's polarisation (Flaxman, Goal & Rao, 2016; Pariser, 2011; Spohr, 2017). For this reason, the current study aimed to gain more insight into the preference for one-sided news by answering the following research question: What is the impact of attitude congruence on selective exposure, selective interpretation and selective retention of news articles on social issues on Facebook, and does defense motivation reinforce the impact?

5.1 Main findings

This study examined whether established attitudes lead to selective exposure, interpretation and retention of news articles about polarising social issues on Facebook. In addition, it examined whether the motivation to protect an attitude close to one's identity, i.e., defense motivation, amplified the effect. In an ideal situation, exposure to one-sided news from an unknown source on Facebook should lead to a careful interpretation and processing of the article. However, an online survey containing three one-sided Facebook articles on polarising social issues revealed a different story. Figure 6 shows the initial research model, adapted to the supported hypotheses.

Figure 6

Research Model Adapted the Supported Hypotheses



The main findings show that one-sided polarising Facebook articles are processed selectively due to established attitudes. Firstly, a preference for news that confirms one's political views was found. Participants who agreed with the article considered the article more personally relevant (e.g., useful, relevant, interesting and engaging). More specifically, the participants in favour of the vaccine passport spent significantly more time reading the supporting article. Secondly, if the article contained one's preferred stance, it was perceived to be of higher quality (e.g., strength of argument, reliability of source, pleasantness). This effect amplified in most articles when the participants were defense motivated. Finally, in contrast to prior expectations, there was no indication of selective retention for one-sided Facebook articles. To summarise all the findings, all hypotheses and their support are listed in Table 10.

Table 10

Hypotheses and their Support

What is the impact of attitude congruence on selective exposure, selective interpretation and selective retention of news articles on social issues on Facebook, and does defense motivation enhance the impact?	Support
H1a: Attitude congruence has a positive impact on exposure time.	Partly accepted
H1b: Attitude congruence has a positive impact on personal-relevance.	Accepted
H2: Attitude congruence has a positive impact on perceived article quality.	Accepted
H3: Attitude congruence has a positive impact on retention	Rejected
H4a: Defense motivation amplifies the positive impact of attitude congruence news on exposure time.	Rejected
H4b: Defense motivation amplifies the positive impact of attitude congruence news on personal-relevance.	Rejected
H5: Defense motivation amplifies the positive impact of attitude congruence news on the perceived article quality.	Partly accepted
H6: Defense motivation amplifies the positive impact of attitude congruence news on the retention of the article message.	Rejected

5.2 Theoretical implications

The main findings provided new insights into *why* and *when* people select one-sided political news and information. To understand *why* people select one-sided news and information, the theory of selective processing was used (Festinger, 1957). To explain *when* people prefer one-sided political news and information, defense motivation of the heuristic-systematic model was used (Liberian & Chaiken, 1992).

First of all, this study found that defense motivation amplifies the selective interpretation in the articles related to the theme of 'inclusiveness'. Consequently, providing the first empirical evidence for defense motivation as an amplifier for selective processing. This finding is in line with previous studies of selective interpretation in the context of political communication, which found that prior attitudes affect the strength of argument and credibility of the source (Kunda, 1999, Sinclair & Kunda, 1999). Moreover, these findings provide more insights on how one-sided news consumption might lead to polarisation. For instance, the reinforcement of attitudes through the selective interpretation of article quality can lead to a defense motivation. Subsequently, defense motivation results in a more pronounced bias, which in turn catalyses the reinforcement of attitudes and leads to more polarised attitudes. Nevertheless, the interaction effect only occurred in the articles related to the theme of 'inclusiveness'. This inconsistency may support the study by Edwards and Smith (1996). They found that the bias in the quality of arguments is more pronounced when people are emotionally involved in the issue. The issue of inclusiveness could lead to more emotional involvement than the issue of the Covid-19 restrictions article. Hence, emotional involvement might moderate the impact of defense motivation.

In addition to the finding of defense motivation as an amplifier of the attitudinal bias in the perceived article quality, the current study also found main effects of attitude congruence on selective exposure. Selective exposure was measured by personal-relevance (preference of congruent news) and exposure time (avoidance of incongruent news). Firstly, this study revealed that prior attitudes bias the personal-relevance of an article (the preference of congruent news). In the context of one-sided news, the impact of attitude congruence on personal-relevance is an interesting discovery. In literature, personal-relevance is a moderator of selective processing (Stroud & Choi, 2017). However, this study revealed that personal-relevance is also influenced by prior attitudes, which is interesting because it suggests that selective exposure and personal-relevance might be interrelated. Besides, since congruent political news is perceived as more personally relevant, the findings of this study support the research of Garrett (2009), Iyengar and Hahn (2009) and Stroud (2008) as personal-relevance might explain why political ideology leads to the consumption of like-minded news.

In contrast to personal-relevance, exposure time (the avoidance of incongruent news) yielded inconsistent results. Consequently, this supports the notion that avoidance of incongruent

information is a weaker motivator for selective exposure than the preference for congruent information (Chaffee, 2001; Devine et al., 1999; Garrett & Stroud, 2009). The inconsistent results of exposure time may be due to one of the moderating variables, which are attitude confidence, utility and need for cognition (Albarracín & Mitchell, 2004; Knobloch-Westerwick & Kleiman, 2012; Sfati & Cappella, 2005). In this study the only article that produced significant results was about the social debate on the vaccine passport. Of the three Facebook articles, the vaccine passport was the most topical social issue. The other two articles about Black Pete and the apology for the slave era have been a social issue for multiple years. Therefore, of the presented moderating variables, attitude confidence seems to be the most suitable moderator to explain why the other articles yielded no significant results. Nonetheless, based on the current study there is no definitive conclusion for the inconsistency in exposure time.

Finally, in this study's findings, there was not an indication that prior attitudes influence the selective retention of one-sided news articles. These results are in contrast with the findings from Stroud and Choi (2017), who argued that individual attributes such as attitude strength, personal-relevance and knowledge enhance selective retention. The lack of significant results can be due to situational factors or moderators that influenced selective retention. A possible moderator has been introduced by Redlawsk, Civettini, and Emmerson (2010), who claimed that selective retention is not insensitive to the amount of incongruent information. However, more research is needed to determine whether the lack of consistent results is due to situational factors, moderators or whether there is no attitudinal bias in the selective retention for one-sided news articles.

5.3 Practical implications

Previous studies have established that one-sided news consumption lead to ideological polarisation, less tolerance for opposing opinions and isolation from new ideas, topics and information (Flaxman, Goal & Rao, 2016; Pariser, 2011; Spohr, 2017). The current study provided additional evidence that prior attitudes cause bias in the processing of one-sided news. These findings suggest that people should not have the responsibility of being their own gatekeeper of news. For this reason, people should be protected from the effects of one-sided news consumption. Based on the findings in this study, two practical implications highlight how to protect

people from their own bias and subsequently, reduce the polarising effects of one-sided news consumption.

Firstly, this study provides arguments for the debate that companies that algorithmically filter news should encode with more civic responsibility. As algorithmically filtered news becomes more prevalent in today's media environment, the detrimental consequences of one-sided news consumption have become more apparent. For instance, after the outbreak of the Covid-19 pandemic, algorithmically filtered news led to conspiracy theories, misinformation or disinformation about the vaccinations. As a result, the debate around the civic responsibility of social media companies is growing. This study contributes to the argument that users stand an unfair chance against algorithmically filtered news as prior attitudes hinder them from making unbiased judgements about the articles they encounter.

Another area that deserves attention is educating the public about their bias in news consumption. The current study revealed a bias in the assessment of relevance and quality of one-sided news. However, most people are not aware of the bias in the way they process one-sided news. Awareness of these distorting effects can motivate individuals to become more critical of their judgements of one-sided news. Moreover, it can motivate them to seek out opposing views and perspectives. Therefore, education is a crucial part of reducing the polarising effects of one-sided news consumption.

5.4 Limitations and recommendations for future research

Several limitations can be formulated for this study. These limitations not only provide insight into what this study was unable to accomplish, but they also reveal new interesting research gaps for future research.

One limitation in this research was the unreliable construct for the variable defense motivation. This resulted in defense motivation being analysed with the item self-definitional attitude. Although self-definitional attitude is closely related to defense motivation, it does not capture all factors of being defense motivated about an attitude such as relevance, morality, importance, pride, elaboration or cognitive basis (Zunick, Teeny & Fazio, 2017). This resulted in serious limitations in interpreting the results as the impact of defense motivation on the selective processes. The shortcoming in reliability can be explained by the lack of previous research on defense motivation. In retrospect, a pretest for the design of the construct would have been valuable. For future

research, it is suggested to design and validate a construct for defense motivation. This can be done through a pretest or be a study on its own. Subsequently, the impact of defense motivation can be reinvestigated.

The next limitation of this research is that the survey failed to ask about the (behavioural) characteristics of the participants. Initially, the choice was made to keep the survey as concise as possible to minimise the number of respondents dropping out halfway through the survey. In retrospect, insights into the characteristics of the sample could not only provide depth to the data, but could also have been useful to validate the normality of the sample. For example, if the sample consisted of many students, this could explain why attitudes towards the fourth Facebook post were not evenly distributed, as most students would likely agree with a free year of college. In addition to sample characteristics, insights into behavioural characteristics would be interesting for future research. This study focused on the effects of being defense motivated about one-sided news article, but it could also be that one-sided news consumption could be the cause of defense motivation. Although there have been studies on the influence of news consumption on polarisation and tolerance for opposing views (e.g. Pariser, 2011; Spohr, 2017; Flaxman, Goal & Rao, 2014), knowledge about the choice of news sources and the amount of online news the participant reads may provide more insight into how this affects being defense motivated. In future research, it would be interesting to see what role news consumption plays in being defense motivated about news topics.

There are limitations to inferring selective exposure results. Selective exposure can be divided into the preference for congruent information and the avoidance of incongruent information (Frey, 1968, Garrett & Stroud, 2009, Chaffee et al., 2001). However, in this study, participants were forced to read four articles, rather than reading news on a Facebook feed. Therefore, the effects found for attitude congruence on exposure time may not reflect to real-life situations. Moreover, the exposure time was measured in an online environment and therefore it was not possible to know exactly what time was spent on actually reading the article and what part of the time the participant was distracted by the offline environment. Although one item on perceived elaboration was included to validate the exposure time, it did not cover all possible implications when measuring exposure time. Therefore, in future research, it would be interesting to see if the main effect still occurs in a controlled offline environment using eye-tracking devices while participants browse a (simulated) Facebook page.

The final limitation concerns the construct of personal-relevance. The findings of personal-relevance were interpreted as the preference of exposure to congruent news. However, preference for congruent news was initially conceptualised as the likeability of articles. The construct likeability changed to personal-relevance due to the lack of internal reliability. It can be argued that the construct personal-relevance might be more suitable as a measure of selective interpretation rather than selective exposure. From this perspective, the findings of this study only indicated that attitude congruence has an effect on the selective interpretation of one-sided news. Future research is relevant to determine whether there is a preference for congruent one-sided news.

5.5 Conclusion

This study examined if defense motivation amplifies the selective effects of attitude congruence on exposure time, personal-relevance, perceived article quality and retention. Main effects were found for attitude congruence on exposure time, personal-relevance and perceived article quality. Moreover, defense motivation amplified the impact on the perceived article quality. This finding provided the first empirical evidence for defense motivation as an enhancer for selective processing. Furthermore, the study provided new insights into understanding the preference for one-sided political news.

III References

- Albarracín, D., & Mitchell, A. L. (2004). The role of defensive confidence in preference for proattitudinal information: How believing that one is strong can sometimes be a defensive weakness. *Personality and Social Psychology Bulletin*, 30(12), 1565-1584. <https://doi.org/10.1177/0146167204271180>
- Arbib, M. A. (1991). *Interaction of multiple representations of space in the brain*. In J. Paillard (Ed.), *Brain and space* (pp. 379–403). Oxford University Press.
- Bakshy, E., Messing, S., & Adamic, L. A. (2015). Exposure to ideologically diverse news and opinion on Facebook. *Science*, 348(6239), 1130-1132.
- Bastardi, A., Uhlmann, E. L., & Ross, L. (2011). Wishful thinking: Belief, desire, and the motivated evaluation of scientific evidence. *Psychological science*, 22(6), 731–732.
doi:10.1177/0956797611406447
- Berent, M. K., & Krosnick, J. K. (1995). *The relation between political attitude importance and knowledge structure*. In M. Lodge & K. M. McGraw (Eds.), *Political judgment: Structure and process* (pp. 91–109). The University of Michigan Press.
- Bland, J. M., & Altman, D. G. (1997). Statistics notes: Cronbach's alpha. *Bmj*, 314(7080), 572.
<https://doi.org/10.1136/bmj.314.7080.572>
- Brannon, L. A., Tagler, M. J. & Eagly, A. H. (2007). The moderating role of attitude strength in selective exposure to information. *Journal of Experimental Social Psychology*, 43, 611–617.
<https://doi.org/10.1016/j.jesp.2006.05.001>
- Brassem, E. (2021, February 12). Nederlanders vinden slavernijverleden ernstig, maar achten excuses niet op zijn plaats. *Trouw*. <https://www.trouw.nl/nieuws/nederlanders-vinden-slavernijverleden-ernstig-maar-achten-excuses-niet-op-zijn-plaats~bacd9e55/>

Caplan, R., & Boyd, D. (2018). Isomorphism through algorithms: Institutional dependencies in the case of Facebook. *Big Data & Society*, 5(1), 1-12.
<https://doi.org/10.1177/2053951718757253>

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, 247–272.
<https://doi.org/10.1080/10584600152400338>

Chaiken, S., & Maheswaran, D. (1994). Heuristic processing can bias systematic processing: Effects of source credibility, argument, ambiguity, and task importance on attitude judgment. *Journal of Personality and Social Psychology*, 66, 460-473. <http://dx.doi.org/10.1037/0022-3514.66.3.460>

Chaiken, S., Giner-Sorolla, R., & Chen, S. (1996). *Beyond accuracy: Defense and impression motives in heuristic and systematic information processing*. In P. M. Gollwitzer & J. A. Bargh (Eds.), *The psychology of action: Linking cognition and motivation to behavior* (pp. 553–578). The Guilford Press.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed). Lawrence Erlbaum Associates.

Darke, P. R., & Ritchie, R. J. (2007). The defensive consumer: Advertising deception, defensive processing, and distrust. *Journal of Marketing research*, 44(1), 114-127. <https://doi.org/10.1509/jmkr.44.1.114>

Devine, P. G., Tauer, J. M., Barron, K. E., Elliot, A. J., & Vance, K. M. (1999). Moving beyond attitude change in the study of dissonance-related processes. In E. Harmon-Jones & J. Mills (Eds.), *Cognitive dissonance: Progress on a pivotal theory in social psychology* (pp. 297–323). American Psychological Association. <https://doi.org/10.1037/10318-012>

- Ditto, P. H., & Lopez, D. F. (1992). Motivated skepticism: Use of differential decision criteria for preferred and nonpreferred conclusions. *Journal of Personality and Social Psychology*, 63(4), 568–584. <https://doi.org/10.1037/0022-3514.63.4.568>
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Harcourt Brace Jovanovich College Publishers.
- Edwards, K., & Smith, E. E. (1996). A disconfirmation bias in the evaluation of arguments. *Journal of personality and social psychology*, 71(1), 5-24.
- EenVandaag. (2020, June 17). Niet alleen Rutte is van mening veranderd: de steun voor traditionele Zwarte Piet is gedaald - *weblog Gijs Rademaker*. <https://eenvandaag.avrotros.nl/panels/opiniepanel/alle-uitslagen/item/niet-alleen-rutte-is-van-mening-veranderd-de-steun-voor-traditionele-zwarte-piet-is-gedaald-weblo/>
- Festinger, L. (1957). *A theory of cognitive dissonance* (Vol. 2). Stanford university press.
- Flaxman, S., Goel, S., & Rao, J. M. (2016). Filter bubbles, echo chambers, and online news consumption. *Public opinion quarterly*, 80(1), 298-320. <https://doi.org/10.1093/poq/nfw006>
- Frey, D. (1986). Recent research on selective exposure to information. *Advances in experimental social psychology*, 19, 41-80. [https://doi.org/10.1016/S0065-2601\(08\)60212-9](https://doi.org/10.1016/S0065-2601(08)60212-9)
- Garrett, R. K. (2009). Echo chambers online?: Politically motivated selective exposure among Internet news users. *Journal of computer-mediated communication*, 14(2), 265-285. <https://doi.org/10.1111/j.1083-6101.2009.01440.x>
- Garrett, R. K., & Stroud, N. J. (2014). Partisan paths to exposure diversity: Differences in pro- and counterattitudinal news consumption. *Journal of Communication*, 64, 680–701. <https://doi.org/10.1111/jcom.12105>

- Hall, S., & Woods, N. (2017). Western democracy in crisis? *World Economic Forum*. <https://reports.weforum.org/global-risks-2017/part-2-social-and-political-challenges/2-1-western-democracy-in-crisis/>
- Hart, W., Albarracín, D., Eagly, A. H., Brechan, I., Lindberg, M. J., & Merrill, L. (2009). Feeling validated versus being correct: A meta-analysis of selective exposure to information. *Psychological Bulletin*, 135: 555–588. <http://doi.org/10.1037/a0015701>
- Holbrook, A. L., Berent, M. K., Krosnick, J. A., Visser, P. S., & Boninger, D. S. (2005). Attitude Importance and the Accumulation of Attitude-Relevant Knowledge in Memory. *Journal of Personality and Social Psychology*, 88(5), 749–769. <https://doi.org/10.1037/0022-3514.88.5.749>
- Iyengar, S., & Hahn, K. S. (2009). Red media, blue media: Evidence of ideological selectivity in media use. *Journal of communication*, 59(1), 19-39. <https://doi.org/10.1111/j.1460-2466.2008.01402.x>
- Jacobson, G. C. (2010). Perception, memory, and partisan polarisation on the iraq war. *Political Science Quarterly*, 125(1), 31–56. <https://doi.org/10.1002/j.1538-165X.2010.tb00667.x>
- Johnson, T. J., Bichard, S. L., & Zhang, W. (2009). Communication communities or “cyberghettos?": A path analysis model examining factors that explain selective exposure to blogs. *Journal of Computer-Mediated Communication*, 15(1), 60-82. <https://doi.org/10.1111/j.1083-6101.2009.01492.x>
- Katz, D. (1960). The functional approach to the study of attitudes. *Public Opinion Quarterly*, 24, 163-204. <https://doi.org/10.1086/266945>
- Klapper, J. T. (1960). *The effects of mass communications*. Free Press.

- Knobloch-Westerwick, S., & Kleinman, S. B. (2012). Preelection selective exposure: Confirmation bias versus informational utility. *Communication research*, 39(2), 170-193. <https://doi.org/10.1177/0093650211400597>
- Knobloch-Westerwick, S., & Meng, J. (2009). Looking the other way: Selective exposure to attitude-consistent and counterattitudinal political information. *Communication Research*, 36(3), 426-448. <https://doi.org/10.1177/0093650209333030>
- Krosnick, J. A., & Petty, R. E. (1995). *Attitude strength: An overview*. In R. E. Petty & J. A. Krosnick (Eds.), *Attitude strength: Antecedents and consequences* (pp. 1–24). Mahwah, NJ: Erlbaum.
- Kruglanski, A. W. (1989). *Lay epistemics and human knowledge: Cognitive and motivational bases*. Plenum Press.
- Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin*, 108(3), 480–498. <https://doi.org/10.1037/0033-2909.108.3.480>
- Kunda, Z. (1999). *Social cognition: Making sense of people*. MIT Press.
- Liberman, A., & Chaiken, S. (1992). Defensive processing of personally relevant health messages. *Personality and Social Psychology Bulletin*, 18(6), 669–679. <https://doi.org/10.1177/0146167292186002>
- Liu, C. H. (2017). Evaluating arguments during instigations of defense motivation and accuracy motivation. *British Journal of Psychology*, 108(2), 296-317. <https://doi.org/10.1111/bjop.12196>
- Lord, C. G., Ross, L., & Lepper, M. R. (1979). Biased assimilation and attitude polarisation: The effects of prior theories on subsequently considered evidence. *Journal of Personality and Social Psychology*, 37(11), 2098–2109. <https://doi.org/10.1037/0022-3514.37.11.2098>

- Meffert, M. F., Chung, S., Joiner, A. J., Waks, L., & Garst, J. (2006). The effects of negativity and motivated information processing during a political campaign. *Journal of Communication*, 56(1), 27–51. <https://doi.org/10.1111/j.1460-2466.2006.00003.x>
- Messing, S., & Westwood, S. J. (2014). Selective exposure in the age of social media: Endorsements trump partisan source affiliation when selecting news online. *Communication Research*, 41, 1042–1063. <https://doi.org/10.1177/0093650212466406>
- Metzger, M. J., Hartsell, E. H., & Flanagin, A. J. (2015). Cognitive Dissonance or credibility? A comparison of two theoretical explanations for selective exposure to partisan news. *Communication Research*, 47(1), 3–28. <https://doi.org/10.1177/0093650215613136>
- Mutz, D. C., & Martin, P. S., (2001). Facilitating communication across lines of political difference: The role of mass media. *American Political Science Review*, 95(1), 97–114. <https://doi.org/10.1017/S0003055401000223>
- Navarro, D. (2013). *Learning statistics with R: A tutorial for psychology students and other beginners: Version 0.5*. University of Adelaide.
- Pariser, E. (2011). *The filter bubble: What the internet is hiding from you*. Penguin Books Limited.
- Redlawsk, D. P., Civettini, A. J.W., & Emmerson, K.M. (2010). The affective tipping point: Do motivated reasoners ever “get it”? *Political Psychology*, 31(4), 563–593. <https://doi.org/10.1111/j.1467-9221.2010.00772.x>
- Rumelhart, D. E. (2017). *Schemata: The building blocks of cognition*. Routledge.
- Shearer, E., & Mitchell, A. (2021, 12 januari). News Use Across Social Media Platforms in 2020. *Pew Research Center’s Journalism Project*. <https://www.pewresearch.org/journalism/2021/01/12/news-use-across-social-media-platforms-in-2020/>

- Sinclair, L., & Kunda, Z. (1999). Reactions to a Black professional: Motivated inhibition and activation of conflicting stereotypes. *Journal of Personality and Social Psychology*, 77(5), 885– 904. <https://doi.org/10.1037/0022-3514.77.5.885>
- Sfati, Y., & Cappella, J. N. (2005). Why do people watch news they do not trust? The need for cognition as a moderator in the association between news media skepticism and exposure. *Media psychology*, 7(3), 251-271. https://doi.org/10.1207/S1532785XMEP0703_2
- Sherif, M., & Hovland, C. I. (1961). *Social judgment: Assimilation and contrast effects in communication and attitude change*. Praeger.
- Smith, M., Bruner, J., & White, R. (1956). *Opinions and personality*. John Wiley.
- Spohr, D. (2017). Fake news and ideological polarisation. *Business Information Review*, 34(3), 150–160. <https://doi.org/10.1177/0266382117722446>
- Stroud, N. J. (2008). Media use and political predispositions: Revisiting the concept of selective exposure. *Political Behavior*, 30(3), 341-366. <https://doi.org/10.1007/s11109-007-9050-9>
- Stroud, N. J. (2010). Polarisation and partisan selective exposure. *Journal of communication*, 60(3), 556-576. <https://doi.org/10.1111/j.1460-2466.2010.01497.x>
- Stroud, N. J. (2011). *Niche news: The politics of news choice*. Oxford University Press.
- Stroud, N. J., & Choi, S. (2017). Selective perception and retention. *The International Encyclopedia of Media Effects*, 1-10. <https://doi.org/10.1002/9781118783764.wbieme0194>
- Stroud, N. J. (2017). *Selective exposure theories*. In K. Kenski & K. H. Jamieson (Eds.), *Oxford Handbook of Political Communication*. New York: Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780199793471.013.009>

Sunstein, C. R. (2001). *Echo chambers: Bush v. Gore, impeachment, and beyond*. Princeton University Press.

Sunstein, C. R. (2018). *# Republic: decided democracy in the age of social media*. Princeton University Press.

Society of Professional Journalists. (2014, October 6). SPJ Code of Ethics - Society of Professional Journalists. *Society of Professional Journalists*. <https://www.spj.org/ethicscode.asp>

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International journal of medical education*, 2, 53-55. <https://doi.org/10.5116/ijme.4dfb.8dfd>

Troncoso Skidmore, S., Thompson, B. (2013). Bias and precision of some classical ANOVA effect sizes when assumptions are violated. *Behaviour Research Methods*, 45, 536–546. <https://doi.org/10.3758/s13428-012-0257-2>

Van den Berg, M., Duijnisveld, E., & Smit, E. G. (2004). *De logica van likeability*. SWOCC.

Weeks, B. E., Lane, D. S., Kim, D. H., Lee, S. S., & Kwak, N. (2017). Incidental exposure, selective exposure, and political information sharing: Integrating online exposure patterns and expression on social media. *Journal of Computer-Mediated Communication*, 22(6), 363-379. <https://doi.org/10.1111/jcc4.12199>

Winter, S., & Krämer, N. C. (2014). A question of credibility: Effects of source cues and recommendations on information selection on news sites and blogs. *Communications*, 39, 435–456. doi:10.1515/commun-2014-0020.

Winter, S., Metzger, M. J., & Flanagin, A. J. (2016). Selective use of news cues: A multiple-motive perspective on information selection in social media environments. *Journal of Communication*, 66(4), 669-693. <https://doi.org/10.1111/jcom.12241>

Yang, J. A. (2016). Effects of popularity-based news recommendations (“most-viewed”) on users’ exposure to online news. *Media Psychology*, 19, 243–271. <https://doi.org/10.1080/15213269.2015.1006333>

Zillmann, D., & Bryant, J.(1985). *Selective exposure to communication*. Lawrence Erlbaum Associates.

Zunick, P. V., Teeny, J. D., & Fazio, R. H. (2017). Are some attitudes more self-defining than others? Assessing self-related attitude functions and their consequences. *Personality and Social Psychology Bulletin*, 43(8), 1136-1149. <https://doi.org/10.1177/0146167217705121>

Zwolsman, N. (2021, March 6). '57 procent kiezers is voor vaccinatiebewijs bij evenementen'. *NRC*. <https://www.nrc.nl/nieuws/2021/03/06/57-procent-kiezers-is-voor-vaccinatiebewijs-bij-evenementen-2-a4034470>

IV Appendices

Appendix A Pretest

Table A1

Arguments Regarding the Statement “Met een paar roetveeg pieten is het nu tijd om te stoppen met de zwarte pieten discussie. Meer verandering is niet nodig” from Strongest to Weakest

Arguments (In Dutch)	English translation	Statistics			
		Median	Mean	SD	Variance
Want kinderen zijn de dupe van acties. Er zijn al veranderingen doorgevoerd, nu is het tijd om het weer een kinderfeest te maken.	Because children are the victims of actions. Changes have already been made, now it is time to make it a children's festival again.	8.00	7.28	2.49	6.21
Want in 2014 onderzocht de werkgroep Mensenrechtenraad van de Verenigde Naties of Zwarte Piet racistisch is. Afschaffen van het feest vond de werkgroep toen ook niet nodig.	Because in 2014, the United Nations Human Rights Council working group investigated whether Zwarte Piet is racist. At the time, the working group did not think abolition of the festival was necessary.	8.00	7.14	2.81	7.91
Want de discussie gaat niet meer over de vraag of Zwarte Piet racistisch is, maar om activistische groeperingen die hun eigen gelijk willen halen.	Because the discussion is no longer about whether Zwarte Piet is racist, but about activist groups that want to prove themselves right.	7.00	7,14	2.13	4.55
Want 68 procent van de Nederlanders wil dat Zwarte Piet overwegend zwart blijft. We leven in een democratie en de cijfers liegen er niet om.	Because 68% of the Dutch people want Zwarte Piet to remain predominantly black. We live in a democracy and the statistics do not lie.	6.00	6.55	2.64	6.97
Door het terroriseren met betogingen op plaatsen waar kleine kinderen zijn, is elke verandering aan Zwarte Piet nu van tafel.	By terrorising with demonstrations in places where children are, any change to Zwarte Piet is now off the table.	6.00	5.45	2.23	4.97
Zolang het over de rug gaat van kinderen is zelfs een vreedzaam en geweldloos protest inmiddels onacceptabel.	As long as it is at the expense of children, even a peaceful and non-violent protest has become unacceptable.	5.00	4.83	2.19	4.79
Want heel veel samenlevingen hebben gewoontes of denkbeelden die men elders absoluut niet snapt of accepteert.	Because many societies have traditions or ways of thinking that are not at all understood or accepted elsewhere.	4.00	4.83	2.93	8.58
Want we maken kinderen al jaren wijs dat Sinterklaas met een paard over de daken loopt en dat hij honderden jaren oud is. Waarom accepteren we dan niet dat Zwarte Piet zwart is van de schoorsteen?	Because for years we have been telling children that Sinterklaas walks the rooftops on a horse and that he is hundreds of years old. So why don't we accept that Black Pete is black from the chimney?	4.00	4.24	2.67	7.12
Want het is een Nederlandse traditie en wij Nederlanders bepalen hoe wij hiermee omgaan.	Because it is a Dutch tradition and therefore the Dutch decide how to deal with it.	2.00	3.41	2.44	5.97
Want het is simpelweg niet waar dat Zwarte Piet op een negatieve manier wordt neergezet.	For it is simply not true that Zwarte Piet is portrayed in a negative way.	2.00	2.79	1.93	3.74

Table A2

Arguments Regarding the Statement “De Nederlandse staat moet zijn excuses aanbieden voor het slavenhandel verleden” from Strongest to Weakest

Arguments (In Dutch)	English translation	Statistics			
		Median	Mean	SD	Variance
Want een staat en vooral een premier moet gemeenschappen met elkaar verbinden. Het weigeren van excuses is hier geen voorbeeld van.	Because a state and especially a prime minister must bring communities together. Refusing to apologise is not an example of this.	8.00	7.96	2.08	4.33
Want excuses zijn het startpunt van een verdere dialoog over racisme.	For apologies are the starting point for further dialogue on racism.	8.00	7.36	1.73	2.98
Want excuses aanbieden voor slavenhandel is het begin van racisme aanpakken in een systeem waar racisme is doorgewinterd.	Because apologising for the slave trade is the beginning of tackling racism in a system where racism has become entrenched.	8.00	6.54	2.91	8.48
Want als Nederland niet eens racisme uit het verleden kan erkennen, hoe kan dan huidig racisme worden aangepakt waar we wel direct mee te maken hebben	Because if the Netherlands cannot even recognise past racism, how can it tackle current racism which we do have to deal with directly?	7.00	6.64	2.15	4.61
Men moet excuses niet zo persoonlijk nemen. De staat moet als entiteit moet zijn verantwoordelijkheid neemt voor zijn verleden.	One should not take excuses so personally. The state as an entity must take responsibility for its past.	5.00	5.25	2.86	8.19
Want als het een groep achtergestelde Nederlanders helpt, moeten we niet zo moeilijk doen.	Because if it helps a group of disadvantaged Dutch people, we should not be so difficult.	5.00	4.89	2.74	7.51
Want het kost de doorsnee Nederlander geen tijd, moeite of geld. Het enige wat mensen in de weg staat is hun trots.	For it costs the average Dutchman no time, effort or money. The only thing that stands in the way of people is their pride.	4.50	5.18	2.80	7.86
Want andere Europese landen hebben dit ook gedaan. Hierdoor kunnen wij niet achter blijven.	Other European countries have done this. Therefore, we cannot be left behind.	3.50	4.32	3.08	9.49
Want nu dit onderwerp is aangewakkerd moeten we wel onze excuses aanbieden, anders is het een extra sneer naar de nabestaande	Because now that this subject has been stirred up, we have to apologise, otherwise it is an extra shot at the survivors.	3.00	3.43	1.45	2.11
Want iedereen die geen excuses wil aanbieden, erkent de ernst en impact van slavernij niet.	For anyone who does not want to apologise does not recognise the seriousness and impact of slavery.	2.50	3.43	2.60	6.77

Table A3

Arguments Regarding the Statement “Door de coronacrisis verdienen jongeren een gratis studiejaar als compensatie” from Strongest to Weakest

Arguments (In Dutch)	English translation	Statistics			
		Median	Mean	SD	Variance
Want door de coronacrisis verwacht 27.1% van de studenten studieovertraging op te lopen en 56.3% zegt zich slechter te kunnen concentreren.	Because of the corona crisis, 27.1% of the students expect to suffer study delays and 56.3% say they have difficulties concentrating.	9.50	8.96	1.60	2.55
Want door de coronacrisis is er een gebrek aan structuur en afwisseling wat online studeren moeilijker maakt.	Because of the corona crisis, there is a lack of structure and variety, which makes studying online more difficult.	8.00	7.39	2.39	5.73
Want door de coronacrisis zijn veel banen weggevalen, vooral bij jongeren of jongvolwassenen met een nulurencontract.	Because the corona crisis has led to many job cutbacks, especially among young people or young adults on zero-hours contracts.	8.00	7.25	2.63	6.94
Want door de coronacrisis en hoge studieschulden is een compensatie van deze pechgeneratie onvermijdelijk.	Because the corona crisis and high student debts make compensation for this unlucky generation inevitable.	6.00	5.93	2.55	6.51
Want door de coronacrisis staat er teveel studiedruk op de jongeren.	Because due to the corona crisis, there is too much study pressure on young people.	5.00	5.14	2.22	4.94
Want door de coronacrisis kampen steeds meer studenten met sombere gevoelens die serieuzer genomen moeten worden.	Because due to the corona crisis, more and more students are struggling with sombre feelings that need to be taken more seriously.	5.00	5.07	2.19	4.81
Want de impact van de coronacrisis op de jongere generatie wordt al te vaak vergeten door de overheid.	Because the impact of the corona crisis on the younger generation is all too often forgotten by the government.	4.50	4.50	2.08	4.33
Want door de coronacrisis is de kwaliteit minder van het diploma dat wordt afgegeven.	Because because of the corona crisis, the quality of the diploma that is awarded is less.	3.00	3.82	2.78	7.71
Want door de coronacrisis lassen studenten zelf een tussenjaar in, met een gratis studiejaar stimuleer je hun ontwikkeling.	Because the corona crisis has caused students to take a gap year themselves, a free academic year stimulates their development.	3.00	3.57	1.99	3.96
Want door de coronacrisis zijn studenten hun hele sociale leven kwijt.	Because due to the corona crisis, students have lost their entire social life.	2.50	3.36	2.38	5.65

Table A4

Arguments Regarding the Statement “Jongeren moeten niet zeuren als evenementen open gaan voor gevaccineerden ondanks dat niet iedereen de kans heeft gehad om gevaccineerd te worden” from Strongest to Weakest

Arguments (In Dutch)	English translation	Statistics			
		Median	Mean	SD	Variance
Omdat de evenementenbranche het niet kan veroorloven om te wachten tot iedereen eindelijk een vaccin heeft. Als dat nog een jaar duurt, overleven ze dat niet.	Because the events industry cannot afford to wait until everyone finally has a vaccine. If that takes another year, they won't survive.	8.50	8.07	2.21	4.88
Omdat het evenement verantwoordelijk is voor de veiligheid van de bezoekers en heeft daarom alle recht op het selecteren van bezoekers.	Because the event is responsible for the safety of the visitors and therefore has every right to select visitors.	8.00	7.43	1.87	3.51
Omdat iedereen opzoek is naar mogelijkheden, organisatoren, muzikanten etc., ze willen zo graag weer aan de gang.	Because everyone is looking for opportunities, organisers, musicians etc., they are so eager to get going again.	7.50	7.11	2.47	6.10
Want ook de veiligheid van niet-bezoekers breng je in gevaar naderhand het evenement.	Because you also endanger the safety of non-visitors after the event.	6.00	5.96	2.73	7.44
Als je kijkt hoe lang deze bedrijven nood gedwongen de deuren moesten sluiten van de regering, dan kunnen we het niet maken om ze nog langer dicht te houden omdat een kleine groep mensen zich buitengesloten voelt.	If you look at how long these companies were forced to close by the government, we cannot justify keeping them closed any longer because a small group of people feel excluded.	5.50	5.43	2.49	6.18
Omdat het vanzelfsprekend is dat mensen die geen vaccin hebben zich gewoon langer aan bepaalde maatregelen moeten houden.	Because it goes without saying that people who do not have a vaccine simply have to adhere to certain measures for longer.	5.00	5.18	2.57	6.60
Omdat een evenement onder niet-essentiële voorzieningen en deze hoeven niet toegankelijk te zijn voor iedereen.	Because an event falls under non-essential facilities and these need not be accessible to all.	5.00	5.00	2.00	4.00
Stel je voor dat er een uitbraak komt, dan loopt het evenementenbedrijf flinke reputatieschade op.	Imagine an outbreak, then the event company suffers considerable reputational damage.	4.00	3.86	1.88	3.53
Je kunt toch niet van gevaccineerde mensen verwachten dat ze wachten met leven totdat de laatste prik is gezet	You can't expect vaccinated people to wait to live until the last vaccination has been administered.	3.00	3.75	2.93	8.56
Omdat het niet iets nieuws is. Bijvoorbeeld: evenementen kunnen ook bezoekers weigeren omdat ze nog geen achttien zijn.	Because it is not something new. For example: events can also refuse visitors because they are under eighteen.	2.00	3.21	3.06	9.36

Appendix B Facebook articles

Figure B1

Facebook Post for Black Pete

A screenshot of a Facebook post. At the top left is a blue circular profile picture. The post text is in Dutch, discussing the need to stop further changes to Black Pete. Below the text is a photograph of a Black Pete character with a black face, wearing a red hat with a white feather and a white coat with gold trim. The character is smiling and holding a handful of almonds in their black-gloved hands. Below the photo is a light blue header with the title 'Veranderingen aan Zwarte Piet moeten hier stoppen' and a short summary of the text. At the bottom of the post are the standard Facebook interaction buttons: 'Like', 'Comment', and 'Share', along with a small profile picture of the user who posted it.

Translation.

Changes to Black Pete need to stop here

It is time to stop making even more changes to Black Pete. With the sooty-white Pete, there have already been enough changes. In addition, 68 percent of the Dutch population believes that Black Pete should remain predominantly black. In 2014, the United Nations investigated whether Black Pete is racist. At the time, the working group did not think abolition of the celebration was necessary. Therefore, it is now time to stop making changes to Black Pete and make it a children's party again. The discussion is no longer about whether Black Pete is racist, but about activist groups that want to prove themselves right.

Figure B2

Facebook Post for Vaccine passport



Jongeren moeten niet zeuren als evenementen open gaan voor gevaccineerden wanneer nog niet iedereen de kans heeft gehad om gevaccineerd te worden. De evenementenbranche kan het zich niet veroorloven om te wachten tot iedereen eindelijk een vaccin heeft. Als dat nog een jaar duurt, overleven ze dat niet. Daarnaast is de organisatie van het evenement verantwoordelijk voor de veiligheid van de bezoekers en heeft het daarom alle recht om bezoeker te selecteren. Denk daarbij ook aan de veiligheid van niet-bezoekers na afloop van het evenement.

Jongeren, stop met zeuren over evenementen voor gevaccineerden
Jongeren moeten niet zeuren als evenementen open gaan voor gevaccineerden wanneer

Like Comment Share

Translation.

Young people, stop whining about events for vaccinated people

Young people should not complain if events are opened to vaccinated persons when not everyone has had the chance to be vaccinated. The events industry cannot afford to wait until everyone finally has a vaccine. If that takes another year, they will not survive. In addition, the event is responsible for the safety of its visitors and therefore has every right to select visitors. Also consider the safety of non-visitors after the event.

Figure B3

Facebook Post for Vaccine passport



The image shows a screenshot of a Facebook post. At the top left is a blue circular profile picture. The text of the post reads: "Jongeren verdienen een gratis studiejaar ter compensatie van COVID-19. Door de coronacrisis is er een gebrek aan structuur en afwisseling wat studeren moeilijk maakt. Van de studenten verwacht 27.1% studievertraging op te lopen en 56.3% zegt zich slechter te kunnen concentreren. Ook zijn er veel banen weggefallen door de coronacrisis, voornamelijk de bijbanen van studenten. Gecombineerd met de hoge studieschulden is een compensatie voor deze pechgeneratie noodzakelijk." Below the text is a photograph of a group of people protesting in a city square, holding signs. One prominent sign says "55% van alle jongeren voelt zich slechter in concentratie". Below the photo, the post has a title "Pechgeneratie verdient een gratis studiejaar" and a truncated description. At the bottom, there are icons for Like, Comment, and Share.

Jongeren verdienen een gratis studiejaar ter compensatie van COVID-19. Door de coronacrisis is er een gebrek aan structuur en afwisseling wat studeren moeilijk maakt. Van de studenten verwacht 27.1% studievertraging op te lopen en 56.3% zegt zich slechter te kunnen concentreren. Ook zijn er veel banen weggefallen door de coronacrisis, voornamelijk de bijbanen van studenten. Gecombineerd met de hoge studieschulden is een compensatie voor deze pechgeneratie noodzakelijk.

Pechgeneratie verdient een gratis studiejaar
Jongeren verdienen een gratis studiejaar ter compensatie van COVID-19. Door de coronac...

Like Comment Share

Translation.

Misfortunate generation deserves a free academic year

Students earn a free year of study as compensation for COVID-19. Because of the corona crisis, there is a lack of structure and variety, which makes studying difficult. Of the students, 27.1% expect to suffer study delays and 56.3% say they have difficulties concentrating. Many jobs have also been lost due to the corona crisis, mainly the part-time jobs of students. Combined with the high study debts, a compensation for this unlucky generation is necessary.

Appendix C Survey questions

Table C1

Survey Questions Translated to English

Variable	Item
Attitude congruence	Q1. The article is in accordance with my personal opinion on the subject (completely disagree, disagree, neutral, agree, completely agree)
Defense motivation	Q2. My personal opinion on this article's topic reflects the kind of person I am. (completely disagree, disagree, neutral, agree, completely agree) Q3 I have no sympathy for people who think differently on this subject.(completely disagree, disagree, neutral, agree, completely agree) Q4 My personal opinion on this article's topic was already established prior to the research. (completely disagree, disagree, neutral, agree, completely agree)
Exposure time	Q5. Which of these options most accurately reflects how you viewed the Facebook post? <input type="checkbox"/> I looked at the post cursorily. <input type="checkbox"/> I scanned the post and only read relevant information. <input type="checkbox"/> I have read the entire post. <input type="checkbox"/> I have read the whole post thoroughly. <input type="checkbox"/> I read the entire post thoroughly and thought about the arguments.
Perceived quality of the article	Q6. What do you think about the quality of this Facebook post? Weak arguments: 0 0 0 0 0 :Strong arguments Unreliable source: 0 0 0 0 0 :Reliable source Lighthearted: 0 0 0 0 0 :Serious Moderate viewpoint: 0 0 0 0 0 :Extreme viewpoint Unbiased: 0 0 0 0 0 :Biased
Personal-relevance	Q7. What do you think of this Facebook post ? Unpleasant: 0 0 0 0 0 :Pleasant Uninteresting: 0 0 0 0 0 :Interesting Boring: 0 0 0 0 0 :Engaging Not useful: 0 0 0 0 0 :Useful Irrelevant: 0 0 0 0 0 :Relevant
Retention: Black Pete	Q28. What statements are in the Facebook post about <i>Black Pete</i> ? more than one answer is possible. <input type="checkbox"/> The sooty-white Pete is a good solution for the Black Pete debate <input type="checkbox"/> Black Peter is not racist at all <input type="checkbox"/> The sooty-white Pete is a good solution for the Black Pete debate (<i>right answer</i>) <input type="checkbox"/> United Nations does not consider Black Pete as racist (<i>right answer</i>) <input type="checkbox"/> The majority of the Dutch population believes that Black Pete should remain black (<i>right answer</i>) <input type="checkbox"/> The children want Black Pete to stay black <input type="checkbox"/> Every country has the right to its own traditions

Variable	Item
Retention: Apology for Slave Era	<p>Q29. What statements are in the Facebook post about <i>Apology for Slave Era</i>? more than one answer is possible.</p> <ul style="list-style-type: none"> <input type="checkbox"/> The Netherlands must apologise for slave trade (right answer) <input type="checkbox"/> The Netherlands must compensate the victims of slave trade <input type="checkbox"/> Apologies for the slave trade are a solution to racism in the Netherlands <input type="checkbox"/> Several other countries have already apologised <input type="checkbox"/> The majority of Dutch people think apologies are unnecessary <input type="checkbox"/> Apologies for the slave trade are necessary to combat current racism (right answer) <input type="checkbox"/> With apologies for the slave trade, the government can connect Dutch society (right answer)
Retention: College year compensation	<p>Q30. What statements are in the Facebook post about <i>College year compensation</i>? more than one answer is possible.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Because of COVID-19 students demand a free academic year <input type="checkbox"/> Because of COVID-19, students should get a free year of study (right answer) <input type="checkbox"/> Because of COVID-19, students are likely to get a free academic year <input type="checkbox"/> Due to COVID-19, many students have lost their jobs (right answer) <input type="checkbox"/> Due to COVID-19 students have more study delays (right answer) <input type="checkbox"/> COVID-19 has made students take out more loans <input type="checkbox"/> Due to COVID-19, the quality of the diploma has decreased
Retention: Vaccine passport	<p>Q31. What statements are in the Facebook post about <i>Vaccine passport</i>? more than one answer is possible.</p> <ul style="list-style-type: none"> <input type="checkbox"/> It is not reasonable that events do not open until everyone is vaccinated (right answer) <input type="checkbox"/> It is understandable that young people have problems with opening up events to those who have been vaccinated. <input type="checkbox"/> It is reasonable that young people with a negative COVID-19 test can participate in events. <input type="checkbox"/> Events cannot afford to wait until the last vaccination has been given (right answer) <input type="checkbox"/> As non-essential facilities, the event company has the right to select visitors (right answer) <input type="checkbox"/> If there is a COVID-19 outbreak, the event company will suffer significant reputational damage <input type="checkbox"/> It is not reasonable to expect vaccinated people to wait until everyone is vaccinated

Table C2*Survey Questions in Dutch*

Variable	Item
Attitude congruence	Q1. Het artikel komt overeen met mijn persoonlijke mening over het onderwerp (Helemaal niet mee eens, niet mee eens, niet mee eens niet mee oneens, mee eens, helemaal mee eens)
Defense motivation	Q2. Mijn persoonlijke mening over het onderwerp in dit artikel stond voor het onderzoek al vast. (Helemaal niet mee eens, niet mee eens, niet mee eens niet mee oneens, mee eens, helemaal mee eens)
	Q3 Mijn persoonlijke mening over het onderwerp in dit artikel zegt veel over hoe ik ben. (Helemaal niet mee eens, niet mee eens, niet mee eens niet mee oneens, mee eens, helemaal mee eens)
	Q4 Ik heb geen begrip voor mensen die anders denken over dit onderwerp. (Helemaal niet mee eens, niet mee eens, niet mee eens niet mee oneens, mee eens, helemaal mee eens)
	Q5. Welke van deze opties geeft het best weer hoe je de Facebook post hebt bekeken? <input type="checkbox"/> Ik heb de post vluchtig bekeken. <input type="checkbox"/> Ik heb de post gescand en alleen relevante informatie gelezen. <input type="checkbox"/> Ik heb de hele post gelezen. <input type="checkbox"/> Ik heb de hele post grondig gelezen. <input type="checkbox"/> Ik heb de hele post grondig gelezen en nagedacht over de argumenten.
Perceived quality of the article	Q5 Wat vind je van de kwaliteit van de Facebook post? Zwakke argumenten: 0 0 0 0 0 :Sterke argumenten Onbetrouwbare bron: 0 0 0 0 0 :Betrouwbare bron Lichtvoetig: 0 0 0 0 0 :Serieus Gematigd standpunt: 0 0 0 0 0 :Extreem standpunt Onbevooroordeeld: 0 0 0 0 0 :Bevooroordeeld
Personal-relevance	Q6. Wat vind je van deze Facebook post? Onaangenaam:0 0 0 0 0 :Aangenaam Oninteressant: 0 0 0 0 0 :Interessant Saai: 0 0 0 0 0 :Boeiend Niet nuttig : 0 0 0 0 0 :Nuttig Irrelevant: 0 0 0 0 0 :Relevant
Retention Black Pete	Welke stellingen staan in de Facebook post over Zwarte Piet, er zijn meerdere antwoorden mogelijk: (vul deze vraag in zonder terug te kijken) <input type="checkbox"/> De roetveeg piet is de oplossing die eigenlijk al te ver gaat <input type="checkbox"/> Zwarte piet is helemaal niet racistisch <input type="checkbox"/> De roetveeg piet is een goede oplossing voor de zwarte pieten discussie (juist antwoord) <input type="checkbox"/> De Verenigde naties vindt zwarte piet niet racistisch (juist antwoord) <input type="checkbox"/> De meerderheid van de Nederlanders vindt dat zwarte piet zwart moet blijven (juist antwoord) <input type="checkbox"/> Kinderen willen dat zwarte piet zwart blijft <input type="checkbox"/> Elk land heeft het recht op eigen tradities

Variable	Item
Retention Apology Slave era	<p>Q29. Welke stellingen staan in de Facebook post over excuses voor slavenhandel, er zijn meerdere antwoorden mogelijk: (vul deze vraag in zonder terug te kijken)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Nederland moet zijn excuses aanbieden voor slavenhandel (juist antwoord) <input type="checkbox"/> Nederland moet de slachtoffers van slavenhandel compenseren <input type="checkbox"/> Excuses voor de slavenhandel zijn een oplossing voor het racisme in Nederland <input type="checkbox"/> Diverse andere landen hebben al hun excuses aangeboden <input type="checkbox"/> De meerderheid van de Nederlanders vindt excuses niet nodig <input type="checkbox"/> Excuses voor de slavenhandel zijn noodzakelijk om huidig racisme te bestrijden (juist antwoord) <input type="checkbox"/> Met excuses voor de slavenhandel kan de regering de Nederlandse samenleving verbinden (juist antwoord)
Retention Free college year	<p>Q30. Welke stellingen staan in de Facebook post over een gratis studiejaar, er zijn meerdere antwoorden mogelijk: (vul deze vraag in zonder terug te kijken)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Door COVID-19 eisen studenten een gratis studiejaar <input type="checkbox"/> Door COVID-19 zouden studenten een gratis studiejaar moeten krijgen (juist antwoord) <input type="checkbox"/> Door COVID-19 krijgen studenten waarschijnlijk een gratis studiejaar <input type="checkbox"/> Door COVID-19 zijn veel studenten hun baan kwijtgeraakt (juist antwoord) <input type="checkbox"/> Door COVID-19 hebben studenten meer studievertraging (juist antwoord) <input type="checkbox"/> Door COVID-19 zijn studenten meer geld gaan lenen <input type="checkbox"/> Door COVID-19 zijn is het kwaliteit van het diploma afgenomen
Retention Vaccine passport	<p>Q31. Welke argumenten staan in de Facebook post over een vaccinatiebewijs voor evenementen, er zijn meerdere antwoorden mogelijk: (vul deze vraag in zonder terug te kijken)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Het is niet redelijk dat evenementen pas opengaan als iedereen gevaccineerd is (juist antwoord) <input type="checkbox"/> Het is begrijpelijk dat jongeren problemen hebben met het openstellen van evenementen voor gevaccineerden <input type="checkbox"/> Het is redelijk dat jongeren met een negatieve COVID-19 kunnen deelnemen aan evenementen <input type="checkbox"/> Evenementen kunnen het zich niet veroorloven om te wachten tot de laatste prik is gezet (juist antwoord) <input type="checkbox"/> Als niet-essentiële voorzieningen heeft het evenementen bedrijf het recht om te selecteren op bezoekers (juist antwoord) <input type="checkbox"/> Als er een COVID-19 uitbraak komt, loop het evenementen bedrijf flinke reputatieschade op <input type="checkbox"/> Het is niet redelijk om van gevaccineerde mensen verwachten dat ze wachten tot iedereen gevaccineerd is

Appendix D Factor analyses

Table D1

Rotated Component Matrix of the Final Factor Analyses from Post 1

	Component		
	1	2	3
LIK. What do you think of this Facebook post? Uninteresting:Interesting	.826		
LIK. What do you think of this Facebook post? Boring: Engaging	.816		
LIK. What do you think of this Facebook post? Not useful :Useful	.779		
LIK.What do you think of this Facebook post? Irrelevant:Relevant	.774		
QUA. What do you think about the quality of this Facebook post? Weak arguments - Strong arguments		.847	
QUA. What do you think about the quality of this Facebook post?Unreliable source - Reliable source		.692	
LIK. What do you think of this Facebook post ? Unpleasant: Pleasant	.356	.639	
DM. My personal opinion on this article's topic was already established prior to the research.			.795
DM. I have no sympathy for people who think differently on this subject.			.605
DM. My personal opinion on this article's topic reflects the kind of person I am.			.592

Table D2*Rotated Component Matrix of the Final Factor Analyses from Post 2*

	Component		
	1	2	3
QUA. What do you think about the quality of this Facebook post? Weak arguments - Strong arguments	.808		
LIK. What do you think of this Facebook post? Not useful - Useful	.774	.327	
LIK. What do you think of this Facebook post? Irrelevant - Relevant	.761	.373	
LIK. What do you think of this Facebook post ? Unpleasant - Pleasant	.739		
LIK. What do you think of this Facebook post? Uninteresting - Interesting	.680	.533	
QUA. What do you think about the quality of this Facebook post?Unreliable source - Reliable source	.646	-.333	
LIK.What do you think of this Facebook post? Boring - Engaging	.628	.518	
DM. My personal opinion on this article's topic was already established prior to the research.			.764
DM. I have no sympathy for people who think differently on this subject.			.669
DM. My personal opinion on this article's topic reflects the kind of person I am.			.533

Table D3*Rotated Component Matrix of the Final Factor Analyses from Post 3*

	Component		
	1	2	3
LIK. What do you think of this Facebook post? Uninteresting:Interesting	.850		
LIK. What do you think of this Facebook post? Boring: Engaging	.830		
LIK.What do you think of this Facebook post? Irrelevant:Relevant	.767		
LIK. What do you think of this Facebook post? Not useful :Useful	.688	.350	
QUA. What do you think about the quality of this Facebook post? Weak arguments - Strong arguments		.736	
LIK. What do you think of this Facebook post ? Unpleasant: Pleasant		.728	
QUA. What do you think about the quality of this Facebook post?Unreliable source - Reliable source	.312	.594	
DM. My personal opinion on this article's topic reflects the kind of person I am.			.763
DM. I have no sympathy for people who think differently on this subject.			.680
DM. My personal opinion on this article's topic was already established prior to the research.			.535

Appendix E Overview means and standard deviations

Table E1

Means, Standard deviations of Attitude Congruence and Defense Motivation on Exposure Time Post 1

	Not Defense motivated		Defense motivated		Overall	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Negative	25.49	15.85	24.49	13.00	25.00	14.49
Positive	28.29	15.39	25.41	13.36	27.02	14.52
Overall	26.64	16.66	24.83	13.07	25.79	14.50

Table E2

Means, Standard deviations of Prior attitude and Defense Motivation on Exposure Time Post 2

	Not Defense motivated		Defense motivated		Overall	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Negative	23.51	16.73	26.50	16.90	24.25	16.76
Positive	23.95	14.38	26.79	18.13	25.51	16.52
Overall	23.64	16.04	26.67	17.55	24.76	16.64

Table E3

Means, Standard Deviations of Attitude Congruence and Defense Motivation on Exposure Time Post 3

	Not Defense motivated		Defense motivated		Overall	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Negative	24.06	11.99	23.45	14.96	23.79	13.33
Positive	28.02	16.62	30.42	13.99	28.98	15.59
Overall	25.69	14.16	26.03	14.93	25.83	14.46

Table E4

Means, Standard deviations of Attitude Congruence and Defense Motivation on Personal-relevance Post 1

	Not Defense motivated		Defense motivated		Overall	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Negative	2.66	.91	2.99	.99	2.82	.96
Positive	3.09	.92	3.48	.78	3.27	.87
Overall	2.84	.93	3.18	.94	3.00	.95

Table E4

Means, Standard deviations of Attitude Congruence and Defense Motivation on Personal-relevance Post 2

	Not Defense motivated		Defense motivated		Overall	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Negative	2.55	.95	2.82	.77	2.62	.91
Positive	3.59	.69	4.18	.62	3.91	.72
Overall	2.85	1.00	3.63	.95	3.14	1.05

Table E5

Means, Standard deviations of Attitude Congruence and Defense Motivation on Personal-relevance Post 3

	Not Defense motivated		Defense motivated		Overall	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Negative	3.20	.84	3.45	.85	3.31	.85
Positive	3.30	.88	3.82	.79	3.50	.88
Overall	3.24	.86	3.59	.84	3.38	.86

Table E6

Means, Standard deviations of Attitude Congruence and Defense Motivation on Perceived Article Quality Post 1

	Not self-defintional		Self-defintional		Overall	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Negative	2.25	.67	1.93	.64	2.10	.68
Positive	3.07	.72	3.15	.66	3.11	.69
Overall	2.59	.80	2.40	.88	2.50	.84

Table E7

Means, Standard deviations of Attitude Congruence and Defense Motivation on Perceived Article Quality Post 2

	Not Defense motivated		Defense motivated		Overall	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Negative	2.40	.64	2.27	.64	2.37	.64
Positive	3.13	.62	3.50	.77	3.33	.73
Overall	2.61	.71	3.00	.94	2.76	.82

Table E8

Means, Standard deviations of Attitude Congruence and Defense Motivation on Perceived Article Quality Post 3

	Not Defense motivated		Defense motivated		Overall	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Negative	2.35	.71	2.34	.72	2.35	.71
Positive	2.97	.67	3.07	.77	3.01	.71
Overall	2.61	.76	2.61	.82	2.61	.78

Table E9

Means, Standard deviations of Attitude Congruence and Defense Motivation on Retention Post 1

	Not Defense motivated		Defense motivated		Overall	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Negative	2.04	.95	2.14	.98	2.08	.96
Positive	2.37	1.03	2.18	.99	2.29	1.01
Overall	2.17	.99	2.16	.98	2.17	.98

Table E10

Means, Standard deviations of Attitude Congruence and Defense Motivation on Retention Post 2

	Not Defense motivated		Defense motivated		Overall	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Negative	2.30	.99	2.40	.81	2.32	.95
Positive	2.42	.70	2.65	.84	2.55	.78
Overall	2.33	.92	2.56	.83	2.41	.89

Table E11

Means, Standard deviations of Attitude Congruence and Defense Motivation on Retention Post 3

	Not Defense motivated		Defense motivated		Overall	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Negative	2.67	.82	2.73	.82	2.70	.82
Positive	2.48	.91	2.81	.91	2.61	.92
Overall	2.59	.86	2.76	.85	2.66	.86