Influence of a Fake News Message on Fear of Crime

Laura Hendriks

s1796828

June 26, 2019

University of Twente

BMS Faculty

Department of Psychology of Conflict, Risk and Safety

First Supervisor: Dr. J.M. Gutteling

Second Supervisor: Dr. Ir. P.W. de Vries

Abstract

Fake news is misleading and can be used to let people be afraid about crimes. Therefore, in this study is researched which factors influence the relation between fake news and fear of crime. The Risk Information Seeking and Processing Theory explains how people perceive risks, it consists of the variables Information Sufficiency, Self-Efficacy, and Perceived Realism. In this study is researched if those variables can explain the influence of fake news on fear of crime. 290 people participated and either got a fake or real news message. Afterwards, participants received a questionnaire in which Information Sufficiency, Self-Efficacy, Perceived Realism, and Fear of Crime were measured. No mediation effect resulted, however there were significant relationships between Self-Efficacy and Fear of Crime and between News Message and Perceived Realism. This indicates that people with high self-efficacy have lower fear of crime and that a fake news message is seen as less real.

 Keywords: fake news, fear of crime, information sufficiency, self-efficacy, perceived realism

1. Introduction

Nowadays, people have more options to read the news than earlier, this can be on mobile phones, tablets, and laptops. Research shows that people are influenced by media content (Boda & Szabó, 2011; Callanan & Rosenberg, 2015; Grabe & Drew, 2007). Unfortunately, there is also fake news that can influence people (Zhang & Ghorbani, 2019). Fake news is ambiguous and misleading news that is intended to give people a different opinion about a subject. For example, people think that Trump became president of America because of fake news during the elections. According to Zhang and Ghorbani (2019) people posted on Twitter that world leaders stood behind Trump or that Hillary Clinton, the opponent of Trump, was involved with criminal activities.

Furthermore, fake news is used to play on people's emotions about certain subjects. Fake news can be created to let people be afraid about crimes. Some people are afraid of crimes while they never experienced a crime in their lives (Aborisade, 2017). Curiel and Bishop (2018) stated that it is not clear what kind of role news messages have in influencing the fear of crime. Callanan (2012) reported that the use of more violent media messages is associated with a higher fear of crime. Furthermore, studies show there are factors that influence the association of news content and fear of crime (Heath & Gilbert, 1996; Callanan, 2012). However, there are few recent studies about fake news and fear of crime. So in the present study the focus lies on the following research question: which factors influence the relation between fake news and fear of crime?

1.1 Theoretical framework

There are different factors that can influence the relation between fake news and fear of crime. One demographic factor that was researched is the influence of gender on the association between fake news and fear of crime. Women were more fearful than men after reading the newspaper about crimes (Callanan & Rosenberger, 2015). Another factor that influenced the relation between fake news and fear of crime was age. Younger participants were more fearful than older people (Callanan, 2012; Callanan & Rosenberg, 2015). On the contrary, in the study of Griffin, Dunwoody and Neuwirth (1999) older people were more fearful than younger people.

Moreover, being a victim of crime influences how much fear people have of crimes. People who have been a victim of crime will rely on their memories when reading about crimes in the news and are therefore are less influenced by fake news messages (Gerbner,

Gross, Morgan, & Signorielli, 1980). People who have never been a victim of crime will be more influenced by fake news messages and will have more fear of crimes. Furthermore, it depends on how often you read the news. Research has shown that the more often people watched television, the more fear they had of crimes (Boda & Szabó, 2011; Romer, Jamieson, & Aday, 2003). The question remains if this is the same for reading fake news online.

In addition, the content of a fake or real message has an influence on how people perceive a message (Grabe & Drew, 2007). People base their opinion about a message on the source (Dechêne, Stahl, Hansen, & Wanke, 2010). People perceive messages with a source as more credible (Koch & Zerback, 2013). Furthermore, an analysis of what is seen as real and fake news messages, like Trump's fake messages, showed that real news messages have more details and are more specific than fake news messages (Dey, Rafi, Hasan, Arko, Chakrabarty, 2018).

Moreover, fake news messages about crimes have an influence on how people perceive risks (Renn & Benighaus, 2013). According to the Extended Parallel Processing Model people have more fear if they perceive a threat as high (Jingyuan, & Smith, 2016). Moreover, Witte (1994) showed that The Risk Information Seeking and Processing (RISP) theory explains how people perceive a threat when reading messages about the risk (Griffin, Dunwoody, & Neuwirth, 1999). According to a meta-analysis of Yang, Aloe, and Feeley (2014) the RISP theory has an explanatory power in analyses of 15 studies. The theory entails three important factors that influence people's search for information.

The main factor is Information Sufficiency, the amount of knowledge someone needs to have enough information to deal with a threat (Griffin, Dunwoody, & Neuwirth, 1999). According to Yang, Aloe and Feeley (2014) especially current knowledge about a risk has impact on how much information people still need. The more people are in need for Information Sufficiency the more they will search for information. According to Griffin, Dunwoody, and Neuwirth (1999) the other two factors are influencing the relation between Information Sufficiency and Risk Information Seeking and Processing. One of those factors is Information Gathering Capacity, which involves the perceived ability of seeking information to a threat. This factor is considered to moderate the relation between Information Sufficiency and Risk Information Seeking and Processing. The last factor is Relevant Channel Beliefs, which entails how real a message is perceived by people. Relevant Channel Beliefs is considered to mediate the relation between Information Sufficiency and Risk Information Seeking and Processing.

The RISP theory assesses that affective responses lead to information seeking, however it is not researched if information seeking has an influence on affective responses, like the fear of crime. Therefore, the purpose of the current study is to examine if Risk Information Seeking and Processing has an influence on people's fear of crime when reading fake news. According to Yang et al. (2011) people will avoid information when their information sufficiency is high. However, there is no research on how information sufficiency influences people's fear of crime when they read a fake news message. Therefore, the first sub-question is composed: "Does information sufficiency have an influence on fear of crime in general?"

Moreover, the higher people perceive their Information Gathering Capacity or self-efficacy to find information, the more control they believe to have when reading a fake news message (Griffin, Dunwoody, & Neuwirth, 1999). People with higher self-efficacy would rate their ability to see if a message is fake as higher and will have less fear of crime when reading a fake news message. Furthermore, based on the Relevant Channel Beliefs people will make an opinion about the reality of a message. A higher level of perceived realism is associated with more fear of crime (Potter, 1988). If people read a fake news message they perceive this as not real and will therefore have a less fear of crime.

Altogether this influences people's Risk Information Seeking and Processing behavior and how people examine a fake news message. Therefore, the second sub-question can be proposed: To what extent do Information Sufficiency, Self-Efficacy, and Perceived Realism mediate the influence of real or fake news on fear of crime? The conceptual model of this mediation is presented graphically in Figure 1.
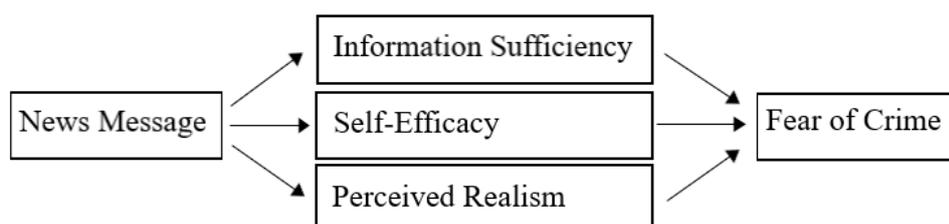

Figure 1. Conceptual Model.

2. Method

2.1 Participants and Design

2.1.1 Design. The study had a one-factor between-subjects design with the independent variable News Message (real versus fake) and the dependent variable Fear of Crime. This study included two conditions, participants either got the Experimental or the Control Condition. In one condition participants read a fake news message (Experimental Condition) and in the other condition people read a real news message (Control Condition). Fear of Crime is influenced by the real or fake news message. The independent variables Information Sufficiency, Self-Efficacy and Perceived Realism mediate the influence of News Message on Fear of Crime.

2.1.2 Participants. Participants were asked to take part in this study or signed up themselves. People could sign up via Facebook, LinkedIn, or the Sona System of the University of Twente. It was based on convenience sampling, because only participants who had access to these sites could participate. The participants via the Sona System could earn credits after taking part. Participants who did not take part via this system were participating voluntary. 290 participants took part in this study (236 females, 52 males, 2 other), with a mean age of 21 (SD = 4,13). 20.7% of the participants had a Dutch nationality ($N = 60$), 72.4% of the participants were German ($N = 210$), and 6.9% had another nationality ($N = 20$). The participants were randomly divided in either one of the conditions. 137 participants got the Experimental Condition and 153 participants got the Control Condition. 57 participants reported they had been a victim of crime and 233 reported they had not been a victim of crime.

2.2 Procedure

Participants got a link in which they were redirected to the Qualtrics website. Requirements for participation were being 18 years or older and people could read English. First, participants were shown an informed consent in which they were informed about the study (see Appendix A). They were informed that the study was about perception in crime and that they would get a short text and several questions about that text. Participants were asked to read it carefully, not to think too much before giving an answer and they were notified that there is no right or wrong. They were informed that the data would be treated confidential and anonymously and they could withdraw from the study at any time without a reason.

After the informed consent, participants got either the text from the Experimental Condition, which was the fake news message or from the Control Condition, which included the real news message. Participants did not know which one they received. Afterwards, they were given a questionnaire containing 45 questions (see Appendix B). Finally, participants were thanked for participation and it was explained to them that there were two conditions in this study. Both conditions were explained so people knew afterwards which condition they had. Again participants were told their answers would be treated confidential and if they wanted to know more about the research, they could contact the researcher via the included email address (see Appendix B).

2.2.1. Measures. First, there were three questions asked about demographics, which consisted of age, gender and nationality (see Appendix B). After these two questions were asked about information sufficiency with a scale ranging from zero to 100 (Griffin, Neuwirth, Dunwoody, & Giese, 2004). This had a correlation of -.35, in the current study the two question had a correlation of -.26. One example question was: "…how much do you think you currently know about the risk from robbery?".

Then, the general self-efficacy scale with ten questions was used (Schwarzer & Jerusalem, 1995). The items were measured with a Likert-scale ranging from "1=not at all true" to "4=exactly true". Cronbach's alpha ranged from .76 to .90, which is in accordance with the current study. Cronbach's alpha was .83 and Guttman's reliability was .84. One example of a self-efficacy item is: "I can solve most problems if I invest the necessary effort.".

Then, the scale about Perceived Realism of Cho, Chen, and Wilson (2012) was applied. Instead of using the word 'ad' here 'news message' was used to be more applicable to this research. Furthermore, one question: "The audio elements of the ad were realistic." was deleted, because there were no audio elements in this research. The items were measured with a Likert scale ranging from "1=strongly disagree" to "5=strongly agree". Cronbach's alpha was .86 and Guttman's reliability was .87. One example item was: "The news message showed something that had really happened.".

Afterwards, the dependent variable Fear of Crime was measured with a scale of Melde, Taylor, and Esbensen (2009). This scale consisted of eight items, which were measured with a Likert scale ranging from "1 = not at all worried" to "5= very worried". In two items the word 'school' was added since a lot of students who filled in the questionnaire did not have a job. An example item was: "Having your things stolen from you at school/work." Cronbach's alpha was .89 and Guttman's reliability was .90.

Finally, two control questions were added to this questionnaire. The first question was "Have you ever been a victim of crime?", which could be answered with yes or no, to see if people who have been a victim of crime read the news differently than people who have not been a victim of crime. The other question was "How often do you read the news online?", which had a scale ranging from "1= a few times per day" to "4= a few times per month", to see if the amount of time spent on reading the news had an influence on participants. The two items had a correlation of -.14.

3. Results

3.1 Descriptive Analysis

The means, standard deviations and correlations of the variables are presented in Table 1. There are no strong correlations between the variables, however there are several significant relationships. Fear of Crime has significant relationships with Age [r (289) = -.18, p = .01], Gender [r (289) = .23, p = .01] and Nationality [r (289) = .23, p = .01], as can be seen in Table 1. Therefore, regression analyses are conducted with independent variables Age and Gender and dependent variable Fear of Crime. Age has a significant negative effect on Fear of Crime [B = -.03, t (289) = -1.99, p = .05]. Gender has a significant positive effect on Fear of Crime [B = .53, t (289) = 4.09, p < .001]. This indicates that older female participants have more fear of crime in general. Also, there was a significant difference between groups of Nationality as determined by one-way ANOVA [F (2,287) = 7.65, p = .001], which is presented in Table 1. Age, Gender and Nationality have an influence on all other analyses with Fear of Crime and are therefore included as independent variables in analyses with Fear of Crime.

Furthermore, as can be seen in Table 1 there is a significant relationship between Self-Efficacy and Gender [r (289) = -.20, p = .05]. A regression analysis with dependent variable Self-Efficacy and independent variable Gender is conducted [B = -.20, t (289) = -3.41, p = .001]. This indicates that female participants had higher Self-Efficacy. Also, a one-way ANOVA determined a significant difference between groups of Nationality [F (2,287) = 12.23, p < .001] as is presented in Table 1. Gender and Nationality have an influence on all other analyses with Self-Efficacy, therefore they are included as independent variables in further analyses with Self-Efficacy.

Another significant relationship presented in Table 1 is the correlation between Age and Perceived Realism [r (289) = -.17, p = .01]. A regression analysis with dependent variable Perceived Realism and independent variable Age is conducted [B = -.02, t (289) = -2.91, p = .004]. This indicates that older people perceived the messages as more real. Age influences further analyses with Perceived Realism, therefore Age is included as independent variable in other analyses with Perceived Realism.

Table 1

Means (M), Standard Deviations (SD), and Correlation between the Variables (N=50)

Variables	M	SD	News Message	Fear of Crime	Information Sufficiency	Self-Efficacy	Perceived Realism
Fear of Crime [a]	3.14	.93	-.02				
Information Sufficiency [b]	40	12.39	-.09	.02			
Self-Efficacy [c]	2.98	.41	-.02	-.20**	.05		
Perceived Realism [d]	3.65	.46	-.23**	.08	.03	.04	
Age	21	4.13	.07	-.18**	.07	.07	-.17**
Gender [e]	1.83	.40	-.05	.23**	.04	-.20*	.04
Nationality [f]	1.86	.51	-.11	.23**	-.07	.16**	-.03

Notes. [a] Scale ranging from "1 = not at all worried" to "5= very worried". [b] Scale ranging from 0 to 100. [c] Scale ranging from "1=not at all true" to "4=exactly true". [d] Scale ranging from "1= strongly disagree" to "5=strongly agree". [e] Scale with 1 = male and 2 = female. [f] Spearman's correlation for 1 = Dutch, 2 = German, and 3 = other Nationality. *p < .05 **p ≤ .001

3.2 Mediation Analyses

To get an answer on the second sub-question for the variables Information Sufficiency, Self-Efficacy and Perceived Realism mediation analyses are conducted. To see if Information Sufficiency mediates the relation between News Message and Fear of Crime, a regression analysis is conducted with dependent variable Information Sufficiency and independent variable News Message. News Message has a non-significant negative effect on Information Sufficiency [B = -2.32, t (289) = -1.60, p = .11].

Furthermore, to see if Self-Efficacy mediates the relation between News Message and Fear of Crime, a regression analysis is conducted with dependent variable Self-Efficacy and independent variables News Message, Sex and Nationality. News Message has a non-significant negative effect on Self-Efficacy [*B* = -.003, *t* (289) = -.07, *p* = .95]. Moreover, a regression analysis with independent variables Age and News Message and dependent variable Perceived Realism is conducted to see if Perceived Realism mediates the relation between News Message and Fear of Crime. News Message has a significant negative effect

on Perceived Realism [B = -.20, t (289) = -3.81, p < .001], which is in accordance with the significant relationship in Table 1 [r = -.23, p < .001].

Then, a regression analysis is conducted with dependent variable Fear of Crime and independent variables Age, Gender, Nationality, News Message, Information Sufficiency, Self-Efficacy, and Perceived Realism. Information Sufficiency has a non-significant positive effect on Fear of Crime [B = .003, t (289) = .68, p = .50], which answers the first sub-question. Self-Efficacy has a significant negative effect on Fear of Crime [B = -.48, t (289) = -3.73, p < .001], which is in line with the significant relationship in Table 1 [r = -.20, p = .01]. Perceived Realism has a non-significant positive effect on Fear of Crime [B = .19, t (289) = 1.66, p = .10].

Finally, the relationship between News Message and Fear of Crime is measured. News Message has a non-significant positive effect on Fear of Crime [B = .08, t (289) = .78, p = .44]. Figure 2 shows the different mediation analyses graphically. To conclude it can be stated that no mediation resulted of the variables Information Sufficiency, Self-Efficacy, or Perceived Realism on the relation between News Message and Fear of Crime.
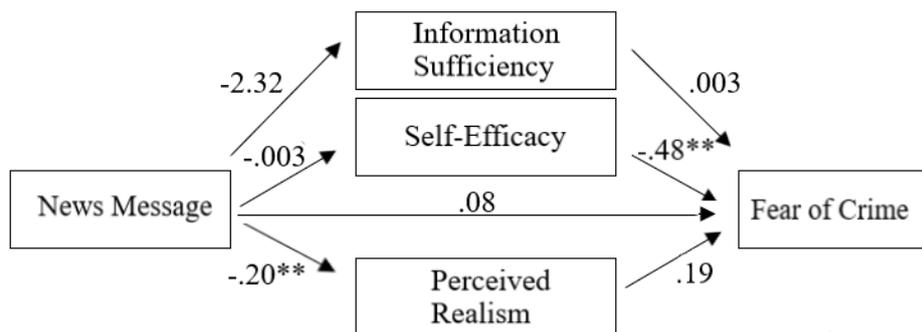

Figure 2. Unstandardized Regression Coefficients of the Mediation Analyses. **p < .001

3.2 Additional Analysis

To see if there is a difference between the groups being a victim of crime and being no victim of crime, a multiple regression analysis is conducted. First, a regression analysis with dependent variable Fear of Crime and independent variables News Message, Victim of Crime, Age, Gender, and Nationality is conducted. News Message has a non-significant negative effect on Fear of Crime [B = .04, t (289) = .36, p = .72]. Also, Victim of Crime has a non-significant negative effect on Fear of Crime [B = -.007, t (289) = -.05, p = .96]. Finally, a multiple regression analysis is conducted with independent variables News Message, Victim of Crime, Age, Gender, Nationality, and the interaction between Victim of Crime and News

Message and with the dependent variable Fear of Crime. A non-significant negative effect of the interaction between Victim of Crime and News Message on Fear of Crime resulted [B = -.46, t (289) = -1.73, p = .09]. The moderation analysis of Victim of Crime on the relation between News Message and Fear of Crime is presented graphically in Figure 3. It can be concluded that no moderation effect resulted of the variable Victim of Crime on the relation between News Message and Fear of Crime.
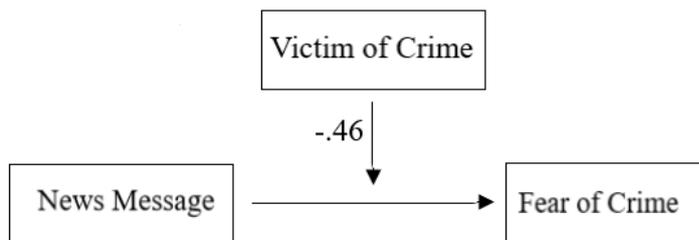

Figure 3. Unstandardized Regression Coefficient of Moderation Analysis of Victim of Crime.

4. Conclusions and Discussion

The results showed two significant relationships. One significant negative relationship occurred between News Message and Perceived Realism, which indicates that people who were given the real news message perceived the message as more realistic. The other significant negative relationship resulted between Self-Efficacy and Fear of Crime. It indicates that people who have higher self-efficacy have less fear of crime. To answer the first sub-question, no effects resulted of Information Sufficiency on Fear of Crime. Also, no other significant relationships resulted. Therefore, the answer on the second sub-question is that Information Sufficiency, Self-Efficacy, and Perceived Realism do not mediate the relationship between News Message and Fear of Crime. Finally, the answer on the main research question is that factors like self-efficacy and perceived realism influence the relation between fake news and fear of crime.

While the expected results did not show, other results were in line with previous research. The real news message was indeed seen as more real by people, which is in line with Koch and Zerback (2013) and Dey, Rafi, Hasan, Arko, and Chakrabarty (2018). Furthermore, in line with Griffin, Dunwoody, and Neuwirth (1999) people with higher self-efficacy, believe they have more control and have less fear of crime. Moreover, according to Callanan and Rosenberg (2015) women were more fearful than men after reading the newspaper about crimes. The current study also showed that women were more fearful about crimes after reading the news online. In line with Griffin, Dunwoody, and Neuwirth (1999) older people were more fearful than younger people.

On the other hand, there were some contrasting findings in this study. First of all, no significant effect resulted of fake news on fear of crime. Furthermore, contrasting to Potter (1988) no results revealed perceived realism being associated with more fear of crime. Also, contrasting to Boda and Szabó (2011) and Romer, Jamieson, and Aday (2003) there were no results about the more often people read the news, the more fear they had. Moreover, according to Gerbner, Gross, Morgan, and Signorielli people who have been a victim of crime will rely on their memories when reading about crimes and will have less fear of crime. Furthermore, although the moderation effect was non-significant, this study did show a negative effect of Victim of Crime on the relation between News Message and Fear of Crime.

An explanation for these contrasting findings is that there were some limitations in this research, which can be improved by future research. The design of the current study was based on convenience sampling. A lot of people responded to the survey via the Sona System,

which is a system in which participants get credits for every questionnaire they fill in. Therefore, participants could have filled it in to get credits without being serious or thinking thoroughly about their answers. Moreover, due to many responses via the Sona system the sample consists especially of Psychology students from the University of Twente. Therefore, future research should focus on probability sampling (Bethlehem, 2016). Despite these limitations, the sample size was large enough to make reliable conclusions. Another limitation is the construct validity of the questionnaire on Information Sufficiency. This questionnaire consisted of two questions, therefore the construct Information Sufficiency might not have been measured accurately. Despite this limitation, the correlation between the two questions was in line with previous research (Griffin, Neuwirth, Dunwoody, & Giese, 2004). There should be further research on what questions measure information sufficiency accurately.

To expand this study, future research is recommended. First of all, future research should design different fake news message to see if this does have an influence on fear of crime. Furthermore, further research should be about the effects of how often people read the news. It could be that this has an influence on fear of crime in general. Moreover, future research should focus more on victims of different crimes. What specific crime people are a victim of and if this specific crime influences how they see the real or fake news message. It could be that people were victim of a robbery in this research, those people would be more affected by the topic of the news message in this study. It could also be that they were victim of another crime that has nothing to do with a robbery. Therefore, research should focus on different crime topics in the news message to see if it has the same effect for other crimes people were a victim of. Also, it should focus on different topics to show if other crimes in the fake news message in general have an influence on people's fear of crime.

Next to suggestions for future research, there are several practical implications. An implication for practice is that people with low self-efficacy should be attentive when reading about crimes, because they have more fear of crime in general. Therefore, researchers should also be cautious when using fear of crime as a measurement in future research. Furthermore, people can be influenced by news messages when reading about crimes in the media. Fake news messages can be distinguished of real news messages by having less details, being less specific and missing the source of the content. Therefore, people should be careful when they read about crimes and assume the news to be true without checking.

References

Aborisade, R. A. (2017). Mass Media and the Cultivation of Fear of Crime in Nigeria. *Journal of Management and Social Sciences, 6*(1), 167-180. Retrieved from http://www.fountainjournals.com/index.php/fujmas/article/view/117

Bethlehem, J. (2016). Solving the Nonresponse Problem with Sample Matching? *Social Science Computer Review, 34*(1), 59-77. doi: 10.1177/0894439315573926

Boda, Z. & Szabó, G. (2011). The Media and Attitudes Towards Crime and the Justice System: A Qualitative Approach. *European Journal of Criminology, 8*(4), 329-342. doi: 10.1177/1477370811411455

Callanan, V. J. (2012). Media Consumption, Perceptions of Crime Risk and Fear of Crime: Examining Race/Ethnic Differences. *Sociological Perspectives, 55*(1), 93-115. doi: 10.1525/sop.2012.55.1.93

Callanan, V. J., & Rosenberger S. (2015). Media, Gender, and Fear of Crime. *Criminal Justice Review*, *40*(3): 322-339. doi: 10.1177/0734016815573308

Cho, H., Shen, L., & Wilson, K. M. (2012). Perceived Realism. *Communication Research, 41*(6), 828–851. doi: 10.1177/0093650212450585

Curiel, R. P., & Bishop, S. R. (2018). Fear of Crime: The Impact of Different Distributions of Victimisation. *Palgrave Communications, 4* (46). Retrieved from https://www.nature.com/articles/s41599-018-0094-8

Dechêne, A., Stahl, C., Hansen, J., & Wanke, M. (2010). The Truth About the Truth: A Meta-Analytic Review of the Truth Effect. *Personality and Social Psychology Review, 14*(2), 238-257. doi: 10.1177/1088868309352251

Dey, A, Rafi, R. Z., Hasan Parash, S., Arko, S. K., & Chakrabarty, A. (2018, June). Fake News Pattern Recognition using Linguistic Analysis. Paper presented at *Joint 7th International Conference on Informatics, Electronics and Vision and 2nd International Conference on Imaging, Vision and Pattern Recognition.* Retrieved from https://ieeexplore-ieee-org.ezproxy2.utwente.nl/stamp/stamp.jsp?tp=&arnumber=8641018&isnumber=8640953&tag=1

Gerbner, G., Gross, L., Morgan, M., & Signorielli, N. (1980). The ''Mainstreaming'' of America: Violence Profile. *Journal of Communication, 11*(30), 10-29. doi: 10.1111/j.1460-2466.1980.tb01987.x

Grabe, M. E., & Drew, D. G. (2007). Crime Cultivation: Comparisons Across Media Genres and Channels. *Journal of Broadcasting & Electronic Media, 51*(1), 147-171. doi: 10.1080/08838150701308143

Griffin, R. J., Dunwoody, S., & Neuwirth, K. (1999). Proposed Model of the Relationship of Risk Information Seeking and Processing to the Development of Preventive Behaviors. *Environmental Research, 80*(2), 230-245. doi: 10.1006/enrs.1998.3940

Griffin, R.J., Neuwirth, K., Dunwoody, S., & Giese, J. (2004). Information Sufficiency and Risk Communication. *Media Psychology, 6*(1), 23-61. doi: 10.1207/s1532785xmep0601_2

Heath, L., & Gilbert, K. (1996). Mass Media and Fear of Crime: PROD. *The American Behavioral Scientist, 39*(4), 379-386. doi: 10.1177/0002764296039004003

Jingyuan, J. S., & Smith, S. W. (2016). The Effects of Fear Appeal Message Repetition on Perceived Threat, Perceived Efficacy, and Behavioral Intention in the Extended Parallel Process Model, *Health Communication, 31*(3), 275-286, doi: 10.1080/10410236.2014.948145

Koch, T., & Zerback, T. (2013). Helpful or harmful? How frequent repetition affects perceived statement credibility. *Journal of Communication, 63*(6), 993-1010. doi: 10.1111/jcom.12063

Melde, C., Taylor, T. J., & Esbensen, F.-A. (2009). "I got your back": An examination of the protective function of gang membership in adolescence. *Criminology: An Interdisciplinary Journal, 47*(2), 565-594. doi: 10.1111/j.1745-9125.2009.00148.x

Potter, W. J. (1988). Perceived Reality in Television Effects Research. *Journal of Broadcasting & Electronic Media, 32*(1), 23-41. doi: 10.1080/08838158809386682

Renn, O., & Benighaus, C. (2013). Perception of Technological Risk: Insight from Research and Lessons for Risk Communication and Management. *Journal of Risk Research, 16*(3-4), 293-313, doi: 10.1080/13669877.2012.729522

Romer, D., Jamieson, K. H., & Aday, S. (2003). Television News and the Cultivation of Fear of Crime. *Journal of Communication, 53*(1), 88-104. doi: 10.1111/j.1460-2466.2003.tb03007.x

Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, & M. Johnston, Measures in health psychology: A user's portfolio. *Causal and control beliefs,* 35-37. Windsor, UK: NFER-NELSON.

Witte K. (1994). Fear control and danger control: A test of the extended parallel process model (EPPM). *Communication Monographs, 61*(2), 113-134. doi: 10.1080/03637759409376328

Yang, Z. J., McComas, K. A., Gay, G., Leonard, J. P., Dannenberg, A. J., & Dillon, H. (2011). Information Seeking Related to Clinical Trial Enrollment. *Communication Research, 38*(6), 856-882. doi: 10.1177/0093650210380411

Yang, Z. J., Aloe, A. M., & Feeley, T. H. (2014). Risk Information Seeking and Processing Model: A Meta-Analysis. *Journal of Communication, 64*(1), 20-41. doi: 10.1111/jcom.12071

Zhang, X., & Ghorbani, A. A. (2019). An Overview of Online Fake News: Characterization, Detection, and Discussion. *Information Processing and Management.* Advance online publication. doi: 10.1016/j.ipm.2019.03.004

Appendix A

Informed consent

Thank you for participating in this study!
This study is about the perception of crime. You will read a media message about a robbery on the next page. Try to read it carefully. After reading the news message, you will receive some questions that I would like you to answer. When answering the questions, there is no right or wrong. Do not think about the answers too much, but rather choose the first thing that comes to mind. Your answers will be treated confidential, and data will be used only in combination with the answers of all participants.

The participation is fully voluntary, which means that you can withdraw from the study any time.
There are no probable consequences of you taking part in this study. The data and results of the study will only be published anonymously and confidentially to third parties.
If you still have any questions left, you can write an email to:
l.h.hendriks@student.utwente.nl

I have read the informed consent and agree to what I read. I declare in a manner obvious to me, to be informed about the nature, method and target of the investigation.

Appendix B

Experimental Condition: Fake News

Man arrested for robbing jewelry.

Last night a person was trying to rob a jewelry store. It is not clear how much jewelry the man stole from the store.

Someone said the person looked shaggy and seemed like he was trying to find the perfect way to get into the jewelry store without being seen by anybody.

The police is looking for witnesses. The suspect is a white male and he wore a black jacket and a balaclava like the one in the picture.

Hopefully this man will get a long sentence in jail.

Control Condition: Real News

Hamilton police are asking for the public's help to identify a suspect in an alleged break and enter at a local jewelry store.

By Laura Hampshire   News Anchor Global News

Rhode Island - Police say the alleged incident happened overnight at Westdale Jewellers on Newton Avenue on Dec. 7 when a man attempted to gain entry by kicking out a window.

However, police say the suspect was scared off by staff, who were already at the business.

The suspect is described as a white man with a medium build who stands six feet tall.

According to police, he was wearing black shoes, light-coloured pants, a jacket with "BUD" on the back (possibly a Budweiser beer jacket) and a mask covering his face at the time of the alleged incident. Police say he was also wearing a backpack on the front of his body.

Investigators are asking the public to contact Det. Const. Ryan Komadowski at 905-546-8938 with any information that could help identify the suspect.

First, a few general questions are asked about your demographics:

What is your age?

What is your sex?

- Male

- Female

- Other

What is your Nationality?

- Dutch

- German

- Other, namely …

Items about Information Sufficiency (Griffin, Neuwirth, Dunwoody, & Giese, 2004)

Now, two questions are asked about your knowledge of this risk.

1. Please use a scale from zero to 100, where zero means knowing nothing and 100 means knowing everything you could possibly know about this topic. Using this scale, how much do you think you currently know about the risk from robbery?

2. Please use a scale from zero to 100, where zero means knowing nothing and 100 means knowing everything you could possibly know about this topic. Using this scale, how much knowledge would you need to deal adequately with the possible risk from robbery in your own life?

Items about Self-Efficacy (Schwarzer & Jerusalem, 1995)

3. I can always manage to solve difficult problems if I try hard enough.

4. If someone opposes me, I can find the means and ways to get what I want.

5. It is easy for me to stick to my aims and accomplish my goals.

6. I am confident that I could deal efficiently with unexpected events.

7. Thanks to my resourcefulness, I know how to handle unforeseen situations.

8. I can solve most problems if I invest the necessary effort.

9. I can remain calm when facing difficulties because I can rely on my coping abilities.

10. When I am confronted with a problem, I can usually find several solutions.

11. If I am in trouble, I can usually think of a solution.

12. I can usually handle whatever comes my way.

The items are measured with a Likert-scale ranging from "1=not at all true" to "4=exactly true".

Items about Perceived Realism (Cho, Shen, & Wilson, 2012)

13. The news message showed something that could possibly happen in real life.

14. The event in the news message portrayed possible real-life situations.

15. The story in the news message could actually happen in real life.

16. Never in real life would what was shown in the news message happen.

17. Real people would not do the things shown in the news message.

18. Not many people are likely to experience the event portrayed in the news message.

19. The news message portrayed an event that happens to a lot of people.

20. What happened to the people in the news message is what happens to people in real world.

21. The news message was based on facts.

22. The news message showed something that had really happened.

23. What was shown in the news message had actually happened.

24. The news message showed a coherent story.

25. The story portrayed in the news message was consistent.

26. Parts of the news message were contradicting each other.

27. The story portrayed in the news message made sense.

28. The event in the news message had a logical flow.

29. The visual elements of the news message were realistic.

30. The acting in the news message was realistic.

31. The scenes in the news message were realistic.

32. I felt that the overall production elements of the news message were realistic.

The items are measured with a Likert scale ranging from "1= strongly disagree" to "5=strongly agree".

Items about Fear of Crime (Melde, Taylor, & Esbensen, 2009)

Please indicate how worried you are of the following things happening to you.

33. Having someone break into your house while you are there.

34. Having someone break into your house while you are away.

35. Having your property damaged by someone.

36. Being robbed or mugged.

37. Being attacked by someone with a weapon.

38. Being attacked or threatened on your way to or from school/work.

39. Having your things stolen from you at school/work.

40. Being attacked or threatened at school/work.

Those items are measured with a Likert scale ranging from "1 = not at all worried" to "5= very worried".

Control questions

41. Have you ever been a victim of a robbery?

- yes

- no

42. How often do you read the news online?

- a few times a day

- once a day

- a few times per week

- a few times per month

Final slide
Thank you for participating!

There were two conditions in this study, you either got the condition in which a 'real' news message was shown or the condition in which a 'fake' media message was shown. In the 'real' condition, date, place, writer, and a contact-number to the police were shown. Otherwise, you had the 'fake' media message. The data will be used to see if there is a difference between the two conditions.
Your answers will be treated confidential, and data will be used only in combination with the answers of all participants.

If you have any further questions or want to know more about this research, feel free to contact me: l.h.hendriks@student.utwente.nl

Please press the arrow below to end this survey.