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-FACULTY OF BEHAVIORAL SCIENCES-

The Impact of Leader feedback on Efficacy Beliefs in Risk communication

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I would like to thank my parents and family for all the support and help that I received. You were and are of great help and I am grateful for that.

Abstract

Governments try to protect their citizens from all sorts of risks and calamities by means of risk communication. However people nowadays increasingly search social media for (additional) risk information. This leaves governmental risk communication target of public scrutiny or peer feedback as studied by Verroen et al. (2013). As more leaders (like mayors or police chiefs) join social media they can find themselves part of this process. The focus of this study is the influence that leaders can have over peers and the effect that they can have on the effectiveness of the risk communication. The study was set up as a 2 (Responder: Leader vs Peer) x 2 (Feedbacktype: Opposing vs Supporting) between subjects design, with a control condition. A total of 253 participants were recruited for the study. Results show a significant increase in effectiveness of risk communication when leader feedback is provided. Peer feedback showed a decrease in effectiveness of the risk communication, scoring worse than the control group. No effect was found for the Feedbacktype and no interaction between Responder and Feedbacktype was found. Implications of these findings are discussed.

Introduction

When disaster strikes the government almost always releases information to help people reduce risk by self-protective behaviour. A very familiar form of risk communication in the Netherlands is that when the sirens go off you should close windows, doors, shut down ventilation and to listen to the emergency radio. On the emergency radio the government will provide additional information about the disaster and what people can do to protect themselves. However in a society where almost everyone is connected to the internet a lot of information regarding the disaster can often quickly be found online on social network sites (Palen, Vieweg, Liu & Hughes, 2009; Veil, Buehner & Palenchar, 2011). Social network sites such as Facebook or Twitter can quickly provide information about the disaster from other users. Palen et al. (2009) state that in today's world people generally increasingly rely on these forms of peer-distributed information and that they often find it to be more timely and accurate. This peer-distributed information can provide feedback from other users about the recommended response and government information. This feedback could be supportive of this information or response or on the other hand oppose it. This way feedback provided by other users can influence the efficacy beliefs of other users regarding the recommended response of the government. Contemporary fear appeal literature suggests that efficacy beliefs are key in motivating people to engage in self-protective behaviour (Gore & Bracken, 2005; Ruiter, Abraham & Kok, 2001; Witte & Allen, 2000; Verroen, Gutteling & De Vries, 2013). The effect of peer feedback via social media on efficacy beliefs of other users regarding the fear appeal was studied by Verroen et al. (2013).

In the study of Verroen et al. (2013) participants were told that in their area large amounts of hazardous materials were transported by train or truck. Next the participants read a news article related to the transport of hazardous materials, containing high or low efficacy information about the self-protective behaviour. Thereafter half of the participants received supporting Twitter messages regarding the self-protective behaviour while the other half received opposing Twitter messages. Verroen et al. (2013) found a significant interaction effect between efficacy information and peer feedback on intention to engage in self-protective behaviour. Participants in the high efficacy supportive feedback condition expressed higher levels of involvement intention to engage in self-protective behaviour. The effect of peer feedback on intention was significantly stronger when participants received a low efficacy article. This study shows that the effectiveness of risk communication does not solely depend on the contents of the message but also on the feedback (Twitter messages) of peers.

The finding by Verroen et al. (2013) leads to the question that if peers can influence the effectiveness of risk communication, what would be the effect of more prominent figures? The aim of the current study is to investigate the effect that feedback of leader can have on the effectiveness of the risk communication. Feedback is understood as an expression of the persons with regards to the recommended

safety response. These are often either opposing or supporting, for instance the Twitter messages from the study of Verroen et al. (2013). It is expected that leader feedback will have a greater effect, positive or negative, on the Effectiveness of risk communication than peer feedback. Having no feedback will have no effect, positive or negative, on the effectiveness of risk communication. First efficacy beliefs and the Extended Parallel Processing Model (EPPM) will be covered where after social identity theory and the social identity theory of leadership will be elaborated. Lastly the main question and hypotheses will be presented.

Efficacy beliefs and the Extended Parallel Processing Model

Efficacy beliefs came to scientific attention in the late 1970's as researchers started researching self-beliefs in a more task-specific way. One of the most notable efforts was by Bandura (1977; 1982) and his theory of behavioural change. The theory served to explain behavioural change in the therapeutic domain but is generalizable to other domains involving behavioural choices and regulation of effort in activities that can have adverse effects (Bandura 1977). In the theory of behavioural change Bandura states that self-efficacy is the driving factor behind behavioural change. Perceived self-efficacy as defined by Bandura (1977; 1982) is the personal judgement of how well one can execute courses of action required to deal with prospective situations. Efficacy expectations vary on multiple dimensions. They can differ in magnitude, generality and strength (Bandura 1977). Magnitude refers to the dependence of the difficulty of a task (Zimmerman, 2000). People may judge themselves to be capable of solving easy problems and have a high self-efficacy but this might decline when faced with more difficult problems going above their capabilities. Generality pertains to the transferability of the self-efficacy beliefs to other tasks or activities. Some experiences create efficacy beliefs on a specific domain or skill. Others create a more general efficacy belief that transfers to other activities or behaviours (Bandura, 1977). Transfer of efficacy to other domains is most likely when they are similar. Strength refers to the amount of one's certainty about performing a given task (Zimmerman, 2000). Weak expectations are easily extinguished by adversity while strong expectations of mastery persevere (Bandura 1977). For instance if a person has a weak belief that he is able to solve a maths problem and fails after a few trails it is likely that he thinks he cannot solve it and stops trying. However if a person has a firm belief that he is capable of solving the problem he will keep trying even if he fails at first.

Self-efficacy in Bandura's theory of behavioural change is based on a judgement of personal skill. This judgement is a cognitive appraisal of the efficacy information provided by the person and the environment. This judgement whether they are accurate or not influences people's choice of activities and environmental setting (Bandura, 1977). In Bandura (1977) four major sources of efficacy information are elaborated. These are performance accomplishments, vicarious experience, verbal persuasion and emotional arousal. Performance accomplishment is based on personal mastery and experience and therefore very influential. Successes increase mastery expectations for future tasks, repeated failures lower expectations. When strong efficacy expectations have formed due to repeated successes the impact of the occasional failure is reduced (Bandura, 1977). Vicarious experience is like performance accomplishments only people now derive efficacy information from others accomplishing the behaviour. Seeing others performance on tasks can influence beliefs about performing the behaviour yourself. Bandura (1977) differentiates self-efficacy from outcome expectancy, a person's estimate that a given behaviour will lead to certain outcomes. Self-efficacy is about the conviction of the person that one can successfully execute the behaviour required to produce the outcomes. Efficacy expectations, according to Bandura (1977; 1982), determine how much effort a person will exert and how long they will persist in the face of obstacles and negative experiences. The stronger the perceived self-efficacy the more active the efforts. This form of efficacy depends on social comparison and is less strong as it does not rely on direct evidence of one's ability (Bandura, 1977).

Verbal persuasion is an often used method to influence or motivate people. Through suggestion people are led into believing that they can successfully perform certain behaviour. Efficacy expectations elicited through this method are weak because they do not provide the authentic experiential base that their own accomplishments do provide (Bandura, 1977). The last source of information is emotional

arousal. Stressful or demanding situations can cause emotional arousal. This arousal, depending on the situation, can have meaningful information concerning the person's competency. For instance a student's negative emotional arousal for a test he did not prepare. This high arousal is than likely to inhibit performance and lower efficacy beliefs (Bandura, 1977).

The effect of efficacy in fear appeal messages is well explained within the framework of the extended parallel processing model (EPPM). Developed by Witte (1992) EPPM is based on protection motivation (Floyd & Rogers, 2000) and drive theories (Witte & Allen, 2000; Ruiter et al. 2001) and has been studied for all sorts of risk-related topics like meningitis awareness or flooding (Gore & Bracken, 2005; Kievik & Gutteling, 2011). According to the EPPM the evaluation of a fear appeal starts by initiating two appraisals of the fear appeal message (Witte & Allen, 2000; Gore & Bracken, 2005). At first people appraise the threat of the issue from the message. When the threat is seen as serious and relevant it elicits fear and motivates people to reduce the fear. If the threat is seen as irrelevant or small there will be no motivation to process the message further and people will simply ignore it (Gore & Bracken, 2005). The second appraisal of the message is an evaluation of the efficacy of the recommended response from the message. The efficacy is composed of two parts, response efficacy and self-efficacy. Response efficacy is the belief that the recommended response will be effective in eliminating or reducing the threat. Self-efficacy in this model is defined as the belief that people actually think themselves capable of executing the recommended response (Witte & Allen, 2000; Gore & Bracken, 2005). When the threat is seen as serious and efficacy beliefs are high people engage in the recommended response and reduce the threat, this is called the danger control process. However if people believe that they cannot perform the recommended response or that the recommended response will not suffice to reduce the threat people will be motivated to reduce their fear. This is called the fear control process and focusses on reducing fear rather than reducing the threat. To control their fear people deny its existence "*It won't happen to me"* or avoid or ignore the message all together (Gore & Bracken, 2005). Information provided about the recommended safety response in the context of a disaster can be expected to have a similar impact as a fear appeal (Verroen et al. 2013). Governments should therefore strive to provide people with high efficacy messages to increase compliance with the recommended response during disasters. As mayors are often responsible for risk communication during or following a disaster their leadership status could have an effect on the effectiveness of the risk communication.

Leadership impact in risk communication

Nowadays almost everybody has some form of social media Facebook and Twitter being among the most popular. Social media has also been deeply ingrained in today's society. When a train arrives late, not unusual in the Netherlands, you can complain about it on the Twitter of the NS (Dutch Train Company). Local churches have their own Facebook pages these days and almost all politicians have a Twitter account. This means that, on social media, not all people have the same impact on other users.
The Twitter account of Mark Rutte, prime minister of the Netherlands, not only currently has 79.9 thousand followers he is also the leader of the current government. Needless to say that Tweets from Mark Rutte will have a much greater impact then Tweets from ordinary people (peers). If we translate this to a disaster with dangerous chemicals having Mark Rutte Tweet that is easy to close windows, doors and shut down ventilation should inspire a bigger following and more efficacy then your neighbor next door. This would be due to the fact that he is prime minister (leader) and not your neighbor (peer). However this effect that a leader can have on the efficacy beliefs of their followers is poorly understood. To understand how leadership works we turn to the Social identity theory.

Social identity theory was developed by Tajfel and Turner (1979) to understand the causes of intergroup conflict after World War II. A social identity was described as a part of the individuals self-concept derived from their knowledge of their membership of a social group together with the value and emotional significance that is attached to the membership of the said group (Tropp & Wright, 2001). The studies were conducted using minimal or minimalistic groups, groups based on meaningless differences like art preference. Participants were randomly selected based on the meaningless criteria to form different groups. The authors assumed that the minimal groups would not be enough to instigate conflicts between

the groups. Only when complexities as competition and inequity would be introduced would they notice the groups and inspire conflict (Tajfel & Turner 1979; 1986 as cited in Forsyth 2014). Participants then had to allocated resources or money to the different groups using matrices with options. However when a social identity is salient individuals act and think like group members instead of individuals and let ingroup norms and values guide their actions (Tropp & Wright, 2001). So when there were clear options that would benefit all groups the most (ingroup and outgroup) participants would still give preference to the option where only their ingroup or ingroup members would be favoured the most (Tajfel, Billig & Bundy, 1972).

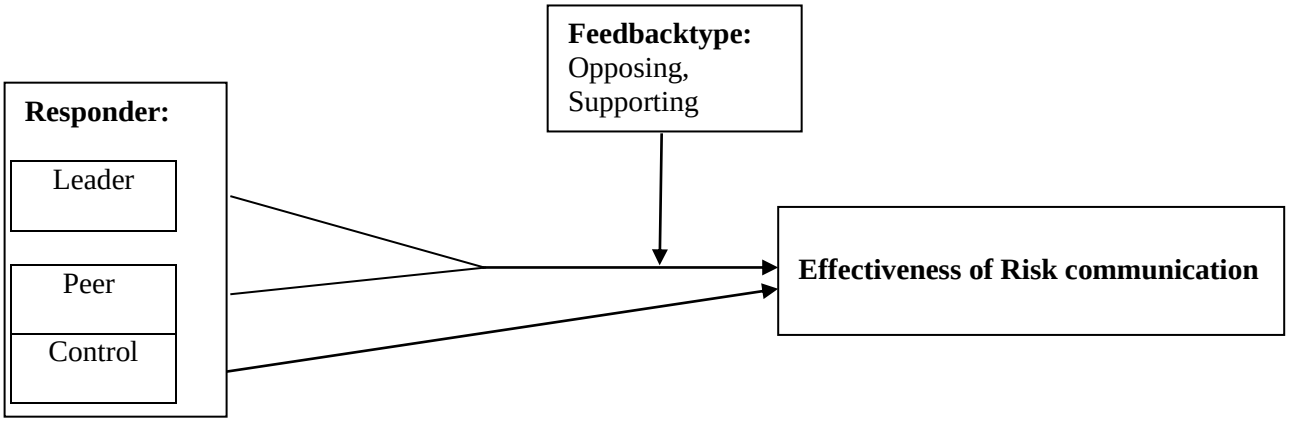
Social identity theory accounts for two cognitive processes that transform membership of a group into a social identity, (self-) categorisation and identification (Tajfel & Turner 1979; 1986 as cited in Forsyth 2014). Social categorisation (Turner, 1982 as cited in Reicher, Haslam & Hopkins, 2005) is the cognitive act of defining oneself and others as members of a group or social category. People automatically place others around them in social categories to quickly infer information about the others around them. For instance in the case of a dangerous suburb an elderly male will probably be no threat. This information is conferred from the social categories that the person belongs to, the elderly are thought of as nonviolent so the threat can be easily dismissed. The other important part of social identity is identification. Identification as defined by Tropp & Wright (2001) is the degree to which the ingroup is included in the self. People high in identification with their group are more likely to see and think of themselves as members of that group. They feel more close and similar to other ingroup members, remain loyal to the group even in the face of threats, are concerned about how their group is treated to other groups and behave in ways that benefit their ingroup (Tropp & Wright, 2001). Put together people actively categorise themselves and others in to groups and social categories to which they can identify to different degrees. This constitutes into a social identity that is shared with other members of the same category or group. This shared social identity can form a basis from which leadership can emerge. Enter the social identity theory of leadership.

The social identity theory of leadership offers a model for leadership based on a shared social category or group to which people can actively categorize themselves and identify with. The model of social identity theory of leadership states that leadership is based on four dimensions (Steffens et al., 2014). These dimensions are identity prototypicality, identity advancement, identity entrepreneurships and identity impresarioship. Identity prototypicality, refers to a high similarity between leaders and the group they represent (Reicher et al. 2005). Steffens et al. (2014) define group leaders as prototypical and exemplary members of the groups they represent. Leaders represent the unique qualities that define the group and what it means to be a member. They embody core attributes of the group that are special for this group and what sets the group apart from other groups. Steffens et al. (2014) aptly summarised identity prototypicality as "*being one of us*". The next dimension is identity advancement or "*doing it for us"*. This entails that group leaders next to "*being one of us"* also have to promote the interest of the group. Steffens et al. (2014) mention in their definition that leaders have to promote core interest of the group, defend group interest, champion its concerns and ambitions, contribute to realization of group goals, act to prevent failures and overcome obstacles to group achievement. The third dimension of the social identity model is identity entrepreneurship by Steffens et al. (2014) summarised in "*crafting a sense of us".* Leaders of groups not only adhere to group values and norms but also have to define core values, norms and ideals (Reicher et al. 2005; Steffens et al. 2014). They have to bring people together, make different people feel that they are part of the group and increase cohesion and inclusiveness in the group. The last dimension is identity impresarioship or "*making us matter".* This dimension of leadership is about delivering outcomes to the group. Leaders have to create material realities that serve to embed the shared identity of followers. These events also have to be visible for outgroups and provide meaning to group membership (Steffens et al., 2014). An example of this can be a rally for a political party. Followers have a physical location where they can derive meaning from their shared identity and are visible for outgroups. These four dimensions constitute to a shared social identity, "*a sense of we and us",* which is essential for leadership (Steffens et al., 2014; Reicher et al. 2012). This shared social identity also forms a basis for a relational identification with a group leader whereby followers strongly identify with the leader as a

person. This special kind of connection between follower and leader increases loyalty to the leader and leader influence (Steffens, Haslam & Reicher, 2014).

Main question and hypothesis

As explained above leaders exert a certain amount of influence over their group members.
It is thought that as people categorise themselves a group members they are open to influence from the leader of the group. This leader can then influence the group member's perceptions of efficacy with his feedback on the risk communication. As discussed efficacy is key in moving people to the danger control process. By providing supporting or opposing feedback on the risk communication the leader might be able to increase or decrease the efficacy of the message (see Model 1). This brings us to the main question this study will be centred round is: to what extent can leaders influence the effectiveness of the risk communication by providing feedback on the risk communication?
The expectations of the effect of leader feedback is captured in the following hypotheses. Leader feedback will increase the Effectiveness Of Risk Communication (EORC) more than peer feedback when the leader feedback is supporting the risk communication. Leader feedback will decrease the EORC more than peer feedback when the leader feedback is opposing the risk communication. Supporting leader and peer feedback will increase EORC relative to having no feedback at all. Opposing leader and peer feedback will decrease EORC relative to having no feedback at all.



Model1: Proposed model of the effect of leader and peer feedback on the effectiveness of risk communication.

Method

Design & Participants

The experiment is set up with a 2 (Responder: Leader vs Peer) x 2 (Feedbacktype: Opposing vs Supporting) between subjects design with a control condition. In the experiment Responder and Feedbacktype are independent variables and the Effectiveness of the Risk Communication (EORC) is the dependent variable. The control condition was added to compare with the different levels of the independent variables. By doing this the net effect of the manipulations can be observed.

By scoring higher or lower than the control group effects of the independent variables can be deemed beneficial or detrimental for the EORC. For instance if the Opposing-Leader condition scores lower on EORC than the control group it can be said that leader opposing the risk communication is detrimental to its effectiveness. To make statements about this kind of effectiveness the control group was added.

A total of 253 participants took part in the experiment. Of the 253 participants 31.3% was male and 68.7% was female. The average age of the participants was 42.12 with a standard deviation of 15.6. The average household size in the study was 2.90 with a standard deviation of 1.4. Of the participants 17.1% stated that they had been burgled in the past and 76.2% of participants said that an acquaintance had been burgled in the past.

Topic

In the study of Verroen et al. (2013) risk perceptions were deemed too low by the authors and it was therefore recommended that a more frightening risk should be introduced. The risk should however be reasonably realistic. Care should be taken not to frighten the participants more than is necessary and to provide them with ways to successfully deal with the risk used. The study of Verroen et al. (2013) used the risk of transport of hazardous materials something most residents probably have little knowledge about or experience with. A more familiar and prevalent risk should be more effective in eliciting fear, it was thought that this risk could be burglary. Burglary in the Netherlands is considered a High Impact Crime because of the high impact of the crime on society. High Impact crimes are a priority for the government and police and considerable effort is spent to reduce High Impact Crime. This approach seems to pay off as the number of burglaries is going down in the Netherlands. Well over 70.651 burglaries were committed in 2014, 16.500 less than in 2013 (Rijksoverheid, 02-03-2015). Due to its general occurrence (not only in the Netherlands) it was thought to be both a frightening and prevalent risk that would be able to elicit fear from residents. Because of its prevalence nearly everybody knows someone who has been burgled and is familiar with the consequences. It is therefore thought that burglary provides a real and more familiar risk then the transport of hazardous materials and thus make it more suitable for this research.

Procedure

Starting on January the 16th residents of Zwolle were asked per Facebook and email to participate in the study. It was deemed likely that people who spend time on Facebook will also go to Facebook when a calamity happens. Facebook seemed therefore a good medium to recruit participants. The study was promoted online in several Facebook groups, for example the group *Zwolle* with 2182 members and the *038 Weggeefhoek Zwolle* with several thousand members as well. However people can in most cases freely join or leave these groups. One does not necessarily have to be a resident of Zwolle to join these groups. It is however very likely that the vast majority will be residents of Zwolle. Participants were told that the study was about safety perceptions, would take little of their time and that they would win one of three VVV-bonnen (gift vouchers) if they participated. A hyperlink would bring the participant to the online questionnaire.

The basis of the questionnaire in this study was formed by the work of Verroen et al. (2013). The questions asked in this study were mostly adaptations of the questions of Verroen et al. (2013), a full list of questions asked is provided in the appendix. Questions from Verroen et al. (2013) were adapted to fit the topic of this study. An example of this is the following question from the study of Verroen et al. (2013) *I think I run less risk from the release of hazardous chemicals when I follow the emergency advice* this was then translate to *I think I run less risk of burglary when I follow the prevention tips from the police.* Another question from Verroen et al. (2013) *I can protect myself from released harmful chemicals when I am outside during the emergency.* Items like this are harder to adapt since it refers to some specific form of self-protective behaviour. It was therefore translated to contain a form of self-protective behaviour that fit this study whilst trying to keep the self-efficacy element. The item was translated to *I am alert to suspicious persons in the neighbourhood.* Not all questions from Verroen et al. (2013) were used, some questions were discarded to keep the questionnaire brief. The questions that were hardest to translate to the topic of burglary were discarded when the questionnaire had to be shortened.

After agreeing with the informed consent participants were asked to fill in their postal code (full questionnaire in Appendix A). Participants then saw a loading image and on the next page were told that it was calculated, based on their postal code, that the chance of a burglary in their home was high. This was accompanied by a partial map with a warning icon above the city of Zwolle. This procedure is an adaptation of the procedure used in the study of Verroen et al. (2013) and Kievik and Gutteling (2011). It was used to induce risk perceptions and involvement. Half of the participants (50%) reported that they found the risk information believable (believable and very believable combined). 29.8% of participants found this information to be unbelievable (unbelievable and very unbelievable combined).

To even further increase perceptions of risk and involvement participants were then asked to read a newspaper article. The article was about a resident who woke up to the sound of two burglars in the bedroom where the resident was sleeping at that moment. The article came from the website of a news agency in Noord Holland and was altered to incorporate the threat physical harm to residents as a result of burglary. It was added that the burglars threatened the resident with a baseball bat and ran when the resident started screaming. The original article stated that the burglars fled the scene as soon as the resident woke up. Often burglary happens when the residents are not at home and the damage is only the lost goods. This could result in low threat perceptions, so the threat of physical harm was added to increase risk perception. The article was presented and made to look like a news article from a local newspaper (de Swollenaer). The majority of participants found this news article believable (74.6% believable and very believable combined).

All participants were asked to read a Facebook post consisting of eight tips to prevent burglary or to lower the risk on burglary. These tips were taken from the official website of the Dutch police. For this study it was made to look like a Facebook post from the police. Only the intro of the official article and the prevention tips were used from the police website. The Facebook post was deemed to be believable by participants (80.6 % believable and very believable combined). The manipulation of Responder and Feedbacktype was in the comments below the Facebook post. These comments were made to look like reactions on the Facebook post. The manipulation for Responder was that the comments could either be made by made peers or the mayor. And the manipulation of Feedbacktype was that these comments could either be supporting the Facebook post or opposing it. There was also a control condition. In this condition no comment was displayed below the Facebook post from the police.

For the peer-supporting and peer-opposing four personas were made up two of which had more female names two more male names. The peer-supportive comments contained messages like: *My home was burgled once and my tablet and laptop were stolen so I will certainly try this* and *Very useful tips, maybe something for you Kenneth van Loon.* In the last comment here another person was tagged in the message to show that the material was being shared among friends. The peer-opposing comments contain messages like: *This is certainly not going to stop a burglar* and *these tips are useless burglars will always find new ways to enter your home.* The believability of these comments was found to be a bit in between 39.1% finding it neither believable nor unbelievable and 38.3% finding it believable (believable and very believable combined). The leader-opposing and leader-supporting conditions had a single comment

displaying the picture of the mayor of Zwolle as well as his name and position. The comment from the leader-supporting condition was *Very helpful these tips from the police, I am going to have a good look at my house.* The comment from the leader-opposing conditions was *Nice those tips from the police but unfortunately they don't really work.* These comments were found to be somewhat believable by participants 41.8% (believable and very believable combined) while a minority 24.1% found them to be unbelievable (unbelievable and very unbelievable combined) the remaining 34.2% found them neither believable nor unbelievable.

After the manipulation only the participants in the leader-opposing and leader-supporting conditions were asked questions that measured the degree of leadership of the mayor. The Identity Leadership Inventory-Short form (ILI-SF) from Steffens et al. (2014) was used. The items were translated into Dutch and adapted to the topic of the study. An example question would be: *The mayor of Zwolle is a typical Zwollenaar.* After the manipulation the peer-opposing, peer-supporting and control condition got questions about self-protective behaviour (see appendix questions A 1-4). The leader-opposing and leader-support conditions received these questions after the ILI-SF. An example question of the self-protective behaviour questions would be: *In order to increase my security against burglary, I would… Find information on the internet or ask the community police officer.* After the questions about self-protective behaviour the participants from all conditions were asked questions about self-efficacy and response-efficacy with regards to the burglary preventions tips they received in the Facebook post. An example of a question asked for Self-efficacy (questions A 5-8 in the appendix) *when about burglary, I am capable of following the prescribed prevention measures of the police*. . The Response-efficacy scale contained questions like (appendix questions A 9-12), *when about burglary, I think I have less chance on being burgled when I follow the prevention measures of the police.*

Hereafter participants from all conditions were asked questions about their risk perception (appendix A questions 13-18) for instance: *the CHANCE I personally will be the victim of a burglary is.* After risk perception questions about involvement were asked (appendix A questions 19-22). This were questions like: *I think it is important to stay informed about the developments regarding burglary and prevention in my neighbourhood.* After the involvement questions participants were asked how believable they found the risk advice based on their postal code, the news article and the Facebook post from the police. The advice based on the postal code was found to be believable by about 50% (believable and very believable combined). The news article was found to be believable by 74,6% (believable and very believable combined) as well as the Facebook post from the police 80,6% (believable and very believable combined). Only in the leader-support and leader-opposing conditions participants were asked how believable they found the comments of the mayor. A small minority of 41,8% found these believable (believable and very believable combined) and 34,2% found these believable nor unbelievable. And only in the peer-support and peer-opposing condition participants were asked how believable they found the comments of their peers. These were deemed believable by 38,3 % (believable and very believable combined) and 39,1% found them believable nor unbelievable. After this background information was asked, age, gender, if their home had been burgled once etc. After the last questions the participants were thanked for their participation and debriefed. The full scope of the study, the manipulations and the sources for the Facebook post and news article were disclosed. An email address for further questions was provided. On the last page participants could leave their email address if they wished copies or removal of their data or if they wanted to participate in the lottery of gift vouchers.

Measures

To get an impression of the reliability of the scales after their translation a reliability analysis was performed for the different scales of the questionnaire. In all cases the reliability could not be increased by removing items from the scale. The leadership scale, ILI-SF, was found to be very reliable (α .82). Questions asked about the Intention to engage in self-protective behaviour showed poor reliability (α .38). Self-efficacy was found to be moderately reliable (α .63). Response-efficacy could be considered moderately reliable as well (α .55). Both efficacy scales together as one scale, Efficacy, proved rather

reliable (α .70). As both forms of efficacy would be part of the EORC and showed considerable reliability they were grouped together to make one Efficacy scale.
Risk perceptions was found to be fairly reliable (α .69) and involvement was also fairly reliable (α .70). Since EORC would be composed of Intention as well as Efficacy a reliability analysis was done if Effectiveness would be a reliable measure. It was found that this was a rather reliable measure with an α of .720. A factor analysis was then done to see if they items would load on their respective factors (See Appendix B). Based on the factor analysis it was decided that the EORC scale, made up of both Efficacy measures and Intention, would be used as the dependent variable in the study.

Results

To get some insight in how the different variables in the study relate to each other a correlation was done between the variables: EORC, Efficacy, Intention, Involvement and Risk perception (see table 1.). As expected EORC correlated highly with Efficacy and Intention since the EORC scale was made up of both variables. The moderate correlation between Intention and Efficacy supports the tenets from the EPPM that high efficacy messages will lead to self-protective behaviour, in this case Intention.
Involvement correlates moderately with EORC and efficacy. When risk communication is to be effective one has to be involved in the risk or the hazard going on. Some level of involvement is needed to process the risk communication, to form risk perceptions and appraise the efficacy in the message. A correlation between Risk perception and Involvement would therefore also be expected. This correlation was found but more notable is the absence of significant correlations with the other variables. Fear is the major drive behind fear appeals and their motivating force to engage in self-protective behaviour in the EPPM. It would therefore be expected that risk perceptions correlate at least with some degree to the EORC or it components but this does not seem to be the case. Involvement and Intention have a slightly lower correlation. This shows that there is a weak link to being involved with a risk and having the intention to engage in self-protective behaviour.

Table 1. Correlations for Effectiveness Of Risk Communication (EORC), Efficacy, Intention, Involvement and Risk perception (N = 253)

Variables	Effectiveness Of Risk Communication	Efficacy	Intention	Involvement	Risk perception
Effectiveness Of Risk Communication	-	-	-	-	-
Efficacy	.938**	-	-	-	-
Intention	.706**	.417**	-	-	-
Involvement	.374**	.345**	.275**	-	-
Risk perception	.099	.079	.098	.206**	-

**p< 0.01 level (2-tailed)

To investigate the effect of Responder and Feedbacktype whilst controlling for the multiple comparison problem a MANOVA was conducted (Table 2). Independent variables were EORC, Risk perception, Involvement, Efficacy and Intention. Independent variables were the Responder and Feedbacktype variables, both including the support condition. The covariates were age, gender, size of the household and both burglary experience questions. A full factorial model was used for main interaction effects. The analysis yielded a marginal significant multivariate effect of Responder was found (F (4, 237) = 2.160, $p <$ .10 ; Wilks' Lambda = .074). No significant effect of Feedbacktype was found (F (4, 237) = 0.079, NS) and neither was there an interaction effect of Responder and Feedbacktype (F (4, 237) = 0.196, NS). None of the covariates was found to be significant. The in the test of between-subjects effects revealed a significant effect of Feedbacktype on the leadership scale (ILI-SF) ($Mopposing$ = 3.10 , SD = 0.834 versus $Msupporting$ = 3.46 , SD = 0.636 ; F = (1, 237) = 2.623 = p <0.05). These results indicate that as leaders oppose the official crisis communication they are less seen as leaders. The between-subjects effects also found an effect of the covariate Gender on the leadership scale (ILI-SF) (F (1, 237) = 6.667 = p <0.05). To further investigate this effect a univariate ANOVA was performed. The ILI-SF was taken as the dependent variable and Gender as the independent variable. Age, household size and both burglary experience questions were used as covariates. A significant effect of Gender on the ILI-SF was found showing that men scored the mayor higher on the ILI-SF than did women ($Mmen$ = 3.61 , SD = 0.595 versus $Mwomen$ = 3.15 , SD = 0.785 ; F = (1, 71) = 6.817 = p <0.05). It should be noted however that there were twice as many women (N = 56) as there were men (N = 21). The higher scores for men could be due to the fact that the mayor is also a man and that men can more easily identify with the mayor because the mayor is more similar to them or more prototypical ("*Being one of us"*).

Table2: Descriptive statistics of the independent variables for the different dimensions of Responder and Feedbacktype

	Leader		Peer		Control
	Opposing (N=40)	Supporting (N=37)	Opposing (N=62)	Supporting (N=53)	- (N=58)
	Mean (s.d.)	Mean (s.d.)	Mean (s.d.)	Mean (s.d.)	Mean (s.d.)
Effectiveness Of Risk Communication	4.00 (0.53)	4.00 (0.43)	3.82 (0.44)	3.83 (0.47)	3.95 (0.54)
Efficacy	3.92 (0.62)	3.93 (0.49)	3.75 (0.49)	3.78 (0.53)	3.89 (0.59)
Involvement	3.99 (0.61)	4.10 (0.71)	3.97 (0.76)	3.99 (0.62)	4.16 (0.58)
Risk Perception	3.29 (0.56)	3.30 (0.61)	3.34 (0.52)	3.41 (0.55)	3.43 (0.50)
Leadership	3.10 (0.83)	3.46 (0.64)	-	-	-

To further investigate the differences of Responder found in the MANOVA a univariate ANOVA was performed. Dependent variable was the EORC. Independent variable was the Responder, without the control group. A full factorial model was used for main the effect. A significant main effect from the Responder was found (*Mleader* = 4.00 , *SD* = 0.479 versus *Mpeer* = 3.83 , *SD* = 0.453; *F* = (1, 191) = 6.631 = *p* <0.05). This provides some evidence for the hypothesis that leaders have more impact on people than peers regarding the enhancing of efficacy in risk communication.

To see how the two groups of Responder would compare to the control condition a one-way ANOVA was performed. Dependent variable was EORC and the independent variable was Responder, with control group included. A significant difference in EORC was found (*Mleader* = 4.00 , *SD* = 0.479 versus *Mpeer* = 3.83 , *SD* = 0.453 versus *Mcontrol* = 3.93 , *SD* = 0.546 ; *F* = (2, 249) = 3.151 = *p* <0.05). This is a remarkable finding because the Control condition scores higher than on EORC than the Peer-Responder dimension. This suggest that the feedback of peers lowers the EORC.

Discussion

This study sought to find an answer as to what extent leaders can influence the effectiveness of the risk communication by providing feedback on the risk communication. The results of this study show that leaders do have impact on the effectiveness of risk communication and more so than do peers. The feedback provided by the leader showed to have a beneficial effect on the effectiveness of the risk communication. This effect was observed regardless of the type of feedback, be it opposing or supporting. Additionally leaders who opposed the risk communication were less seen as leaders by the participants. In general men saw the mayor more as a leader than did the women in the study. The results showed that having peer feedback decreased the effectiveness of the risk communication.
When interpretation the results within their respective theoretical frameworks, EPPM and the social identify theory of leadership some points of discussion come to light.

In the Extended Parallel Processing Model (EPPM) of Witte (Witte & Allen, 2000) the focus lies on the contents of the message and the appraisal thereof. This study and the study of Verroen et al. (2013) show that in risk communication people not only appraise the contents of the risk communication but also additional information. As shown by both studies there is also a social influence of peers and leaders that can provide efficacy information next to the risk communicating. This social influence complements the model that is solely focussed on cognitive appraisals of the message and perceptions of efficacy. This study and that of Verroen et al. (2013) show a more social instead of cognitive approach to risk communication. An example of a more social approach to risk communication can be found in the Social Amplification of Risk (SARF) model (Kasperson, Renn, Slovic, Brown, Emel, Goble, Kasperson & Ratick, 1988). The model shows how different processes shape the social experience of risk and contribute to the risk consequences. Although EPPM and SARF explain different risk-related phenomena the social approach like that of SARF could serve as inspiration for a more social approach within the Extended Parallel Processing Model.

With regards to the social identity theory of leadership the results are a bit harder to place. As expected leaders yielded more influence than peers. However when the leader opposed the risk communication they were less seen as leader. This effect is hard to place within the theory and might be attributed to a decrease in one or all of the four dimensions, prototypicality, advancement, entrepreneurship and impressarioship. In light of this study saying that the tips from the police do not work offers the group members nothing. In contrast it makes the tips provided less useful because they supposedly do not work. This could deteriorate the dimension of advancement "*doing it for us"* as going against the information is not in the interest of the group. This could subsequently decrease leadership perceptions of group members. However without additional information it is hard to attribute the loss of leadership on advancement alone. This information would have been available had the Identity Leadership Inventory (ILI) been used instead of the short form used in this study. The ILI provides a more broad measure of the different dimensions as more questions are used. Additionally this study does offers

support for the Identity Leadership Inventory Short Form (ILI-SF) as it was found to be very reliable measure for leadership in this study. A question that arises from this research is that as a leader goes against official police information, an institute with authority and its own leaders, how is this perceived by the group?

As the work of Verroen et al. (2013) served as a basis and inspiration for this study a comparison seems appropriate. The studies do share a similarity in the respect that like in the study of Verroen et al. (2013) the nature (opposing vs. supporting) of the feedback did not seem to matter to the participants. Verroen et al. (2013) found that when the efficacy of the risk communication is low peer feedback has the most impact on the participants. Especially the opposing peer feedback really deteriorated the effectiveness of the communication as Verroen et al. (2013) offers advice on how to attenuate this effect. This study somewhat confirms this as peer feedback was found to be detrimental to the effectiveness of the risk communication. Verroen et al. (2013) suggest that increasing the efficacy of the risk communication cancels out the effect the negative effects of peer feedback. But the negative effect of peer feedback was apparent in this study even as the efficacy of the Facebook post was high. This seems to contradict the finding of Verroen et al. (2013). Perhaps the strength of the efficacy determines the impact that peers can have as the impact in Verroen et al. (2013) seemed stronger than in the current study. Additional research might provide more information about this apparent contradiction.

For future research in this topic a more robust scale of intention to engage in self-protective behaviour should be developed to further increase the reliability of EORC. And although the levels of risk perception in this study were slightly higher than that of Verroen et al. (2013) they still average at moderate levels. A weak correlation between risk perception and intention to engage in self-protective behaviours was found in this study. This casts some minor doubt on the idea that higher risk perception leads to more intention to engage in self-protective behaviour and higher efficacy as was found by Kievik and Gutteling (2011). However it may still prove beneficial for future research if risk perception levels are increased. As the findings of Kievik and Gutteling (2011) should not be easily dismissed. The study also suffered from somewhat low levels of believability (see procedure) of the commentaries of both peers and the mayor. Participants knew they were participating in a study and that manipulations are often used. It is therefore not unthinkable that participants rightly judged the comments to be made up. A more covert study like Gore and Bracken (2005) would increase realism and possibly the effect of the comments.

This study also has some practical implications for the users of risk communication. With regards to social media usage this study showed that the general public does regard these messages as highly believable. Social media can be a valuable channel for the spreading the risk communication as information can be easily updated and is very accessible. On top of that these risk communications could be distributed via the social media channels of leader figures like mayors or the chief of police. In light of this study this could increase the efficacy of the message. Furthermore Verroen et al. (2013) offers some practical advice for suppressing possible negative peer feedback effects of social media by increasing the efficacy of the risk communication. With regards to burglary the study shows that people believe themselves to be well prepared and in knowledge of what to do when they do get burgled.

All things considered this study provided a new angle on risk communication by synthesizing leadership theory with risk communication literature. The study provides some evidence that leaders can have a positive influence on the effectiveness on risk communication and would like to spark further research on this topic.

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Appendix

A. Questionnaire control condition

Informed consent	Bedankt voor uw interesse in dit onderzoek naar veiligheidsbeleving in Zwolle. In deze vragenlijst wordt u gevraagd een aantal artikelen te lezen en daarna hierover een aantal vragen te beantwoorden. Het gehele onderzoek zal ongeveer 10 minuten duren. Het onderzoek kan eventueel gevoelens van onveiligheid of onbehagen oproepen. Leest u voor deelname alstublieft de volgende voorwaarden van het onderzoek goed door. Door op volgende (onderaan) te klikken geef ik aan vrijwillig deel te nemen aan het onderzoek. Ik weet dat ik op elk gewenst moment kan stoppen met het onderzoek. Ik weet dat data vergaard in het onderzoek word geanonimiseerd voor wetenschappelijke publicatie of andere vormen van publicatie. Onder de respondenten worden drie VVV-bonnen van 25 euro verloot. Om kans te maken moet u wel uw mailadres achterlaten aan het eind van de vragenlijst. Voor vragen of opmerkingen over het onderzoek kunt u terecht bij g.j.boeve@student.utwente.nl	
Manipulation	Vult u alstublieft cijfers van uw postcode in.	Postal code

Manipulation		
Manipulation	Op basis van de door u ingevoerde postcode hebben wij berekend dat de kans op een inbraak bij u thuis groot is. 	
Text	Leest u alstublieft het volgende krantenartikel goed door.	
Manipulation	 **ZWOLLE – Op donderdagmiddag kwam een 24-jarige bewoner oog in oog te staan met twee inbrekers in een woning aan de Hornstraat in Zwolle.** Omstreeks 12.30 uur lag de bewoner even te slapen in haar	

	slaapkamer toen zij wakker werd. In haar slaapkamer stonden twee inbrekers. De mannen bedreigden het slachtoffer met een honkbalknuppel en gingen er daarna meteen vandoor toen het slachtoffer om hulp begon te schreeuwen. De daders waren binnengekomen en vertrokken door een raam op de benedenverdieping. Zij zijn mogelijk weggereden in een kleine zwarte personenauto. De eerste verdachte was een licht getinte slanke man van ongeveer 20 jaar oud, met een lengte van 1.80 tot 1.85 meter. Hij had gemillimeterd haar en droeg een zwarte winterjas en een zwarte broek met een witte verticale streep. De tweede verdachte was een blanke man van 1,70 tot 1,75 meter lang en een steviger postuur (sportschooltype). Hij had kort haar en droeg een donkerblauwe jas. De gewaarschuwde politie stelde een onderzoek in in de omgeving. De verdachten werden niet meer aangetroffen Eventuele getuigen van de inbraak worden verzocht contact op te nemen met de politie.	
Randomization	RANDOMISATIE NAAR CONDITIE	
Stimulus Material	 **Woninginbraak** **Woninginbraak kan een grote impact hebben op uw gevoel van veiligheid. Er zijn vreemden in uw huis geweest, ze hebben aan uw bezittingen gezeten en misschien waardevolle spullen meegenomen. Helaas komt woninginbraak regelmatig voor. De politie doet er veel aan om inbrekers op te pakken. Zelf kunt u er met verschillende maatregelen voor zorgen dat inbreken in uw woning niet makkelijk is. De meeste inbrekers gaan voor een snelle buit. Hoe langer ze bezig zijn uw woning binnen te komen, hoe groter de kans dat ze het opgeven.** Hoe kan ik de kans op een inbraak verkleinen? - Een schuifpui is inbraakgevoelig. Breng hiervoor een speciaal geschikt slot aan. - Uw sleutels buiten verstoppen is niet handig. deurmat en bloempot zijn geen ‘geheime’ plaatsen.	

	- Hang geen adreslabel aan uw sleutel(bos). - Zorg dat u geen grote hoeveelheid geld in huis hebt. - Berg waardevolle papieren en sieraden goed op in een kluisje of huur bijvoorbeeld een bankkluisje. - Zorg voor voldoende verlichting om uw woning. - Zorg dat er geen ladders, containers of andere hulpmiddelen bij uw woning staan die het makkelijk maken naar binnen te klimmen. - Breng als u op vakantie gaat uw buren op de hoogte, zij kunnen een oogje in het zeil houden en ervoor zorgen dat uw woning er 'bewoond' uitziet (geen post achter de voordeur, af en toe gordijnen openen en sluiten, met een tijdschakelaar het licht aan laten gaan). << *waakzaam en dienstbaar* >>	
Text	Nu volgen er een aantal vragen die betrekking hebben op het Facebookbericht (politie tips). Leest u de vragen goed door. Kiest u telkens het antwoord wat het dichtst bij uw mening ligt.	
Text	Kunt u aangeven in hoeverre u het eens bent met de volgende stellingen. Als ik mijzelf en anderen beter zou willen beveiligen tegen woninginbraak, dan zou ik...	
Question #	Question contents	Answer options
1	De adviezen van de politie opvolgen (uit het Facebook bericht).	5 points Likert Disagree-Agree
2	Informatie opzoeken op het internet of informeren bij de wijkagent.	5 points Likert Disagree-Agree
3	Geen adreslabel aan mijn sleutelbos hangen.	5 points Likert Disagree-Agree
4	Zorgen dat ik geen grote hoeveelheden geld in huis heb & waardevolle papier en sieraden in een kluis bewaar.	5 points Likert Disagree-Agree
Text	De volgende vragen gaan over dingen die u zou kunnen doen om de kans op woninginbraak te verkleinen. Kunt u aangeven in hoeverre u het eens bent met de volgende stellingen. Als het gaat om woninginbraak, dan...	
5	Weet ik wat de meest veilige plek is om mijn kostbaarheden te	5 points

	bewaren.	Likert Disagree-Agree
6	Ben ik alert op verdachte figuren in de wijk waarin ik woon.	5 points Likert Disagree-Agree
7	Heb ik er vertrouwen in dat ik goed ben voorbereid op de gevolgen van een inbraak.	5 points Likert Disagree-Agree
8	Ben ik instaat om de voorgeschreven preventie maatregelen van de politie op te volgen.	5 points Likert Disagree-Agree
9	Vind ik het afdoende om 112 te bellen wanneer ik een verdacht figuur zie rondhangen bij mijn huis of dat van mijn buren.	5 points Likert Disagree-Agree
10	Vind ik dat ik afdoende beschermd ben wanneer ik alle deuren en ramen goed afgesloten heb en voldoende verlichting om mijn woning heb.	5 points Likert Disagree-Agree
11	Vind ik dat de voorgeschreven preventiemaatregelen van de politie nut hebben.	5 points Likert Disagree-Agree
12	Denk ik dat ik minder kans heb op inbraak als ik de preventiemaatregelen van de politie opvolg.	5 points Likert Disagree-Agree
Text	Wij zouden graag weten hoe u denkt over de risico's van een woning inbraak bij u thuis.	
Text	De volgende vragen gaan over de KANS dat er bij u wordt ingebroken.	
13	Hoe groot acht u de KANS dat er bij u wordt ingebroken?	5 points Likert Very small – very big
14	De KANS dat ik schade oploop door een inbraak bij mij thuis acht ik...	5 points Likert Very small – very big
15	De KANS dat ik zelf te maken krijg met een woninginbraak acht ik...	5 points Likert Very small – very big
Text	De volgende vragen gaan over de GEVOLGEN van een woningbraak bij u thuis. Probeert u zich voor te stellen hoe u zou	

	reageren als er bij u zou zijn ingebroken.	
16	Als er een woninginbraak plaats zou vinden bij mij thuis, dan zijn de gevolgen voor mij…	5 points Likert Very small – very big
17	Een woninginbraak zal mijn leven enorm ontwrichten.	5 points Likert Disagree-Agree
18	Als er een woninginbraak plaats vind ondervind ik hier zeker hinder van.	5 points Likert Disagree-Agree
Text	Graag zouden wij weten hoe betrokken u bent bij het onderwerp woninginbraak. In hoeverre bent u het eens met de volgende stellingen?	
19	Ik vind het belangrijk om op de hoogte te zijn van ontwikkelingen rondom woninginbraak en woninginbraakpreventie bij mij in de buurt.	5 points Likert Disagree-Agree
20	Ik kan mij de gevolgen van een inbraak in mijn woning goed voorstellen/indenken.	5 points Likert Disagree-Agree
21	Ik voel mij betrokken bij de risico's die verbonden zijn met woninginbraak.	5 points Likert Disagree-Agree
22	Een inbraak in mijn woning zal invloed op mij hebben.	5 points Likert Disagree-Agree
Text	Tot slot volgen nog een aantal vragen over de geloofwaardigheid van de risico inschatting die u aan het begin van het onderzoek heeft gekregen op basis van uw postcode. Het kranten artikel wat u gelezen heeft en het Facebookbericht van de politie (politie tips).	
23	De risico inschatting op basis van mijn postcode vond ik...	5 points Likert Very unbelievable – very believable
24	Het gelezen krantenbericht vond ik...	5 points Likert Very unbelievable – very believable

25	Het Facebookbericht van de politie vond ik...	5 points Likert Very unbelievable – very believable
Text	Tot slot willen we u nog vragen wat algemene gegevens in te vullen.	
26	Wat is uw leeftijd	Text
27	Wat is uw geslacht	Man, Woman, other
28	Is er bij u wel eens ingebroken?	yes/no
29	Is er bij een bekende van u wel eens ingebroken?	yes/no
30	Uit hoeveel personen bestaat uw huishouden?	1 >
Debriefing	Zeer bedankt dat u mee gedaan heeft aan dit onderzoek. Met dit onderzoek trachten we te achterhalen wat de invloed is van leiders (bijvoorbeeld de burgemeester van Zwolle) en buurtgenoten op de zelfredzaamheid van burgers als het aankomt op een woninginbraak. De risicoschatting van de kans op een woning inbraak op basis van de door u ingevulde postcode is door de onderzoekers VERZONNEN. Dit is gedaan om de dreiging van een woninginbraak te verhogen voor het welslagen van het onderzoek. Het artikel over de inbraak is waargebeurd en vond plaats in Andijk, Noord-Holland. Verder is het artikel aangepast om hem dreigender te doen overkomen. Het originele artikel kunt u vinden in de link onderaan de pagina. ALLE reacties en personen onder het Facebook bericht zijn door de onderzoekers VERZONNEN. Dit is gedaan om de invloed die deze zouden kunnen hebben te sturen. Heeft u geen reacties gezien dan zat u in de controle conditie. De informatie van het Facebook bericht van de politie is ECHT maar komt van de website van de politie. U kunt het volledige artikel over inbraak en inbraak preventie vinden op de website van de politie (Link onder aan de pagina). Voor meer informatie over de studie of vragen en opmerkingen kunt u e-mailen naar g.j.boeve@student.utwente.nl Als u de optie wilt om uw antwoorden op te vragen of te verwijderen laat u dan op de volgende pagina u email adres achter als een vorm van identificatie. Zodra u de antwoorden doorstuurt zonder dit te doen is uw data anoniem en niet meer te onderscheiden van alle andere anonieme data. Verwijdering of	Agree to have read the text

	kopieën is dan niet meer mogelijk. Als u uw mailadres opgeeft doet u ook automatische mee voor de verloting van de VVV-bonnen. Kranten artikel http://www.medemblikactueel.nl/2015/10/09/24-jarige-andijkse-staat-oog-in-oog-met-inbreker/ Inbraak preventie https://www.politie.nl/themas/woninginbraak.html	
Text	Laat hier uw email adres achter als u in de toekomst kopieën wilt van uw antwoorden of u uw antwoorden wil laten verwijderen. Uw email adres is ook nodig om contact met u op te kunnen nemen als u de winnaar bent van een VVV-bon. De VVV-bonnen worden na de dataverzameling verloot en aan de winnaars opgestuurd.	Emailadress

Leader condition

	Stimulus material below Facebook post	
Mayor Opposing		
Mayor Supporting		
Text	De volgende vragen gaan over het commentaar van de burgemeester van Zwolle (Henk Jan Meijer).	
1	De burgemeester van Zwolle is een typische Zwollenaar.	5 points Likert Disagree-Agree
2	De burgemeester van Zwolle is een voorvechter voor de Zwollenaren.	5 points Likert Disagree-

		Agree
3	De burgemeester van Zwolle creëert saamhorigheid onder de Zwollenaren.	5 points Likert Disagree-Agree
4	De burgemeester van Zwolle creëert nuttige mogelijkheden voor de Zwollenaren.	5 points Likert Disagree-Agree
	Additional item for the believability questions	
	De reactie van de burgemeester van Zwolle vond ik...	5 points Likert Very Unbelievable - very believable

Peer condition

	Stimulus material below Facebook post	
Peer Opposing		

Peer Supporting		
	Additional item for the believability questions	
	De reacties onder het Facebookbericht vond ik....	5 points Likert Very Unbelievable-very believable

B. Factor loadings and communalities based on a principal components analysis with Varimax rotation for 12 items from the Effectiveness Of Risk Communication (EORC) (N =253)

	Factor 1	Factor 2	Factor 3	Factor 4
Vind ik dat de voorgeschreven preventiemaatregelen van de politie nut hebben.	.834			
Denk ik dat ik minder kans heb op inbraak als ik de preventiemaatregelen van de politie opvolg.	.775			
De adviezen van de politie opvolgen (uit het Facebook bericht).	.746			
Informatie opzoeken op het internet of informeren bij de wijkagent.	.460			
Weet ik wat de meest veilige plek is om mijn kostbaarheden te bewaren.		.758		
Zorgen dat ik geen grote hoeveelheden geld in huis heb & waardevolle papier en sieraden in een k...		.679		
Heb ik er vertrouwen in dat ik goed ben voorbereid op de gevolgen van een inbraak.		.604		
Ben ik alert op verdachte figuren in de wijk waarin ik woon.		.512		
*Ben ik instaat om de voorgeschreven preventie maatregelen van de politie op te volgen.	.461	.465		
Vind ik dat ik afdoende beschermd ben wanneer ik alle deuren en ramen goed afgesloten heb en vold…			.808	
Vind ik het afdoende om 112 te bellen wanneer ik een verdacht figuur zie rondhangen bij mijn huis...			.648	
*Geen adreslabel aan mijn sleutelbos hangen.				.941

Note. Factor loadings < .4 are supressed. * Questions are deleted in the finale scale of EORC