Universiteit Twente
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Bachelorthese

Social Pressure and Involvement –
to what Extend do these Factors influence Adherence Probability?

Enschede, Universiteit Twente – Faculteit Gedragswetenschappen

Abstract

In this experimental study, a 2x2 between subject design was used to create different levels of the factors social pressure and involvement to study its' effect on information seeking in general and on adherence probability in specific. Furthermore, the effect of involvement on remembrance was studied.

Due to the fact that the survey failed to create different levels of social pressure, no assumptions can be made with regard to this factor. Involvement, however, was found to have a significant effect on adherence probability. No effect on remembrance was found. Information seeking behaviour did not differ significantly differ between the groups, but was found to be high in all conditions. This is probably caused by the high levels of involvement throughout all conditions.

Key words: risk information; social pressure; involvement; adherence probability; remebrance

Introduction

In the last years, people's view of risks has changed dramatically. Individuals became more aware of and concerned about the risks they experience in their daily lives. In modern, highly industrialized countries, risk became a topic of nearly universal importance (Hampel, 2006). Nowadays, people are confronted with new and large-scaled risks that either are by-products of modern technology as pesticides or nuclear radiation or are influenced and amplified by them. As a consequence of international travel, dangerous pathogens as SARS and H5N1 are now able to cross geographical boundaries that limited their spread in the past. And due to satellite communications and the widespread accessibility of the internet, people all over the world can learn about any given risk within hours. This leads to a constant feeling of anxiety in society (Ropeik, 2004). To reduce feelings of anxiety, effective mass media campaigns are crucially important. In earlier days, communicating risk to the public used to be driven by expert conceptualisations of public information needs (Griffin, Dunwoody, & Neuwirth, 1999) and followed the assumption that most people do not posses sufficient knowledge of science and technology to be capable of judging risks and benefits (Gregory and Miller, 1998). Following this so-called "top-down" approach, risk communication simply used to stress possible threats and recommended behaviours to reduce these threats while the role of the receiver was neglected (Fessenden-Raden, Fitchen,& Heath, 1987). In more recent years, a different view of risk communication evolved: the "bottom up" approach. This approach tends to be more receiver-oriented and assumes that individuals will actively search information if it is relevant and useful to them in some way (Sjöberg, 2002). Although this approach does not propose that "top down" messages are completely ineffective, it states that risk communication is bound to fail if researchers and practitioners do not understand the interaction between message characteristics and audiences´ information processing characteristics (Griffin et al, 1999). Therefore, it is important to understand the ways various audiences and audience segments seek and process the risk information they encounter in the media and other communication channels (Griffin et al, 1999).

The aim of this experimental study was to find out to what extend differences in message characteristics influence individual adherence probability and remembrance of the message. Therefore, a survey with four different messages was created to evoke different levels of the factors social pressure and involvement to study its' effect on adherence probability and remembrance. In the last 25 years, a number of general models have been

proposed to explain information seeking behaviour and interacting variables. But rather than describing the same set of activities, these models rather represent different aspects of the same general outcome. Therefore, the frameworks are complementary, rather than competing (Wilson, 1999). In 1981, Wilson proposed that the information need is not a primary one but a secondary need. It arises out of needs from environmental, social and person-related variables. He also stated that the same context that leads to information seeking behaviour also gives ground to the rise of barriers that impede the search for information. In contrast, the sense making theory (Dervin, 1999) focuses on an information gap between a situation in time and a planned outcome and a bridge as mean to close the gap. The gap is both a barrier to sense making and a prompt to action, for example to undertake information seeking.

In 2006, Godbold combined Wilson's and Dervin's frameworks in the so-called "Extended Model of Information Seeking Behaviour". In this framework, a person in a certain situation stands at the information gap, contemplating the gap and the need for sense making. Based on the decision derived from his or her conclusion, the person then undertakes some course of action to make sense by employing one or more of a full range of options for handling information. Therefore, the existence of an information gap is not only influenced by information seeking behaviour, but also by factors as the importance of satisfying the need (e.g. perceived involvement and personal relevance) and the availability of information sources.

But because these theories explain information behaviour only in general terms and do not search for separate entities that affect this kind of behaviour, no explicit claims can be made. In 1999, Griffin et al proposed a more specific model of risk information seeking and processing (RISP). Based on parts of the Heuristic-Systematic Model (Eagly and Chaiken, 1993) the Theory of Planned Behaviour (Ajzen, 1991) and mass media research, RISP proposed a variety of variables that might predispose an individual to seek and process information in various risk settings (Griffin et al, 1999). The model also states that different individuals have different levels of amount of information they believe they need in order to feel confident to judge a given risk. According to the model, information seeking and processing is directly affected by 3 factors: Information Sufficiency, Relevant Channel Beliefs and Perceived Information Gathering Capacity. In addition, the indirect factors Affective Responses, Informational Subjective Norms, Perceived Hazard Characteristics and Individual Characteristics are also influential for information processing and seeking.

*Social Pressure.*According to Atkin (1972), the assumption that significant others (i.e. family and friends) are knowledgeable about an issue might stimulate the individual to seek information. Individuals faced with risky situations are inclined to base their decisions on which behaviour to pursue first by considering what other people do and possible reactions of family, friends, and others are seen as great influences of these decisions (Neuwirth and Frederick, 2004). An individual's perception that relevant others think that he or she should (or should not) perform a particular behaviour can be at least as important as predictor of behaviour as the person's own cognitions and attitudes about performing the behaviour (Ajzen and Fishbein, 1980; Fishbein and Ajzen, 1975).

RISP proposes, that informational subjective norms might affect information sufficiency and therefore indirectly predict to ones motivation to seek additional information or to reject information. According to the Theory of Planned Behaviour, in contrast, Normative Beliefs are supposed to directly affect a person's behavioural intentions (Ajzen, 2002). Therefore, we expect high levels of perceived social pressure to lead to higher levels of information seeking than low levels of information seeking behaviour in the experiment.

*Involvement.*Involvement represents the personal importance, interest and significance of the risk topic to the individual and therefore determines the extend to which an individual is willing to think about the topic (Johnson 2005). Research by Nathan, Heath and Douglas (1992) has shown that involvement is positively associated with the individual's willingness to gather information. When people are confronted with a threat or an uncertainty, they will evaluate whether their self interests are affected. This consequently will lead or lead not to problem recognition. Without recognition of the problem, individuals will not experience sufficient involvement and motivation to seek information (Heath, Liao, & Douglas, 1995). In the Elaboration Likelihood Model, Involvement is an important predictor of how information is processed. According to the model, the process of information can take two separate routes: When involvement is high, people elaborate information extensively via the central route and will relate to strong messages. In contrast, when involvement is low, individuals tend to use the so-called peripheral route. This means that they not extensively elaborate the information, but rather rely on environmental characteristics of the source such as perceived credibility or the quality of presentation (Petty and Cacioppo, 1986). With regard to the authors named above, we expect high levels of involvement to lead to higher levels of information seeking than lower levels of involvement. Given the influence of both independent variables apart,

we expect high levels of both factors combined to lead to the highest level of information seeking in this experiment. To judge the effectiveness of risk communication, it is necessary to find out how people respond to the campaign and whether or not they intent to adopt to the proposed risk related behaviours (Kahlor, 2003). In their study about adherence to screening recommendations in women with and without a family history of breast cancer, Rutten and Ianotti (2003) found, that issue involvement is significantly associated with adherence. Further is proposed, that both a reported family history of breast cancer and perceived vulnerability were positively associated with repeated mammography participation (Lerman, 1990). In Social Cognitive Theory, norms influence behavior anticipatory by the social consequences they provide. Behavior that fulfils social norms gains positive social reactions and thus provides further self incentives and contributes to adherence to healthful behavior. Behavior that violates social norms, in contrast, brings social censure and will guide to non-adherence (Bandura, 1986). Although these research outcomes are all based on health issues, we therefore expect both social pressure and involvement to influence on adherence.

*Hypothesis 1.*A message with high social pressure will create better adherence than a message with low social pressure.

*Hypothesis 2.*A message high on involvement will create better adherence than a message with low involvement.

Another important aspect within risk communication is how much an individual remembers in the different conditions. An issue judged to be personally relevant or important is more likely to generate more systematic processing than an issue considered less important and relevant (Petty and Cacioppo, 1981: Eagly and Chaiken, 1993). According to Eagly and Chaiken (1993), attitudes developed through more intense information processing are more stable and last longer than those developed through superficial processing. RISP proposes that the effort expended in gathering and especially processing information about preventive behaviours affect the stability of beliefs and attitudes about that behaviour derived through those activities (Griffin et al, 1999). We therefore expect that high levels of involvement will lead to higher levels of remembrance.

*Hypothesis 3.*A message high on involvement will create high levels of information remembrance.

Method

Materials

Two articles were used to manipulate the independent variables social pressure and involvement. After filling out several demographic questions and reading both articles, participants were asked to answer three different sets of items used to measure the dependent variables information seeking (a combination of the constructs information seeking behaviour and information seeking intention), adherence probability and remembrance.

Participants

One hundred students between 19 and 29 (mean age= 22.65) participated in the study. Eighty-eight percent were enrolled as students at Twente University, 11 per cent at Saxion Highschool and one participant at another university. There where significantly more Psychology students (72%) than TCW (19%), EDMM (3%) and other (6%) students. Although there were significantly more German than Dutch participants, the vast majority lived in the province Overijssel. No significant gender difference was found within or between the groups.

Design and Procedure

The study design was a 2 (social pressure: high vs low) x 2 (involvement: high vs low) between subject experiment. Conditions were tested one at a time. After a sufficient number of participants had completed the survey in one condition, it was into the next condition. All participants were sent the same link leading them to the experiment. After 25 respondents had completed the survey in the condition low on both factors, the first article was changed to create a condition high on social pressure and low on involvement. After another 25 respondents completed the survey, the second article was changed into the high condition as well to create a condition high on both factors. Thereafter, the condition was changed to low social pressure x high involvement after another 25 participants. After the last 25 participants completely had filled out this condition, the experiment was completed. The group manipulations will be discussed below.

At the beginning of the experiment, respondents were asked to answer some questions about their demographic background. Subsequently, they started the experiment. They first read 5 application tips provided by Nobilis.nl used to manipulate the independent variable social pressure and then a shortened version of the article: "Avian Influenza: assessing the pandemic threat" published by the WHO in 2004 which intended to manipulate the second independent variable involvement.

Social Pressure. Respondents were given 5 application tips provided by Nobilis.nl, a source expected to be reliable. The first 4 tips were general application tips concerning the letter of application, a neat appearance, the body language and the behavior during the conversation and were the same in both conditions. The 5th tip was different: The condition low on social pressure contained a tip for women applying for a leadership position, a stimulus which had no relation with the further experiment. In the high involvement condition, participants were informed that questions about recent events often were used to measure general interest and general knowledge in an interview for a job. The term Influenza A virus was explicitly mentioned to create a high level of social pressure. Therefore, we expected the tip about general interest to lead to high levels of social pressure and the tip about woman applying for a leadership position to lead to low levels of social pressure.

Involvement. Two different levels of involvement were created. Respondents received a shortened article published by the WHO (World Health Organization) which described the danger of influenza A viruses in general and of the H5N1 virus in particular. The first part of the article contained information about the nature of influenza A viruses, their possibility to change their genetic makeup and the severe consequences resulting from a mix up between human and avian viruses. Consequently, the formation, occurrence and particular danger of the H5N1 virus was stressed. To evoke high involvement, pandemic influenza was rated as a danger to the whole world in one of the two conditions. In the low involvement condition, by contrast, pandemic influenza was solely described as a danger to the Asian continent. Whereas the described cases of H5N1 were situated in Europe in the high involvement condition, they were supposed to have occurred in Asia. Furthermore, the article contained a table which showed sex, age, province and outcome (“died” or “recovered”) of the infected victims. In both conditions, most of the victims were approximately the same age as the respondents. While the majority of victims used to live

in the same province (Overijssel) as the respondents in the high involvement condition, they were claimed to have lived in provinces of Vietnam in the low involvement condition. The distribution of victims over different provinces was the same in both conditions.

In sum, 4 groups were created out of two manipulations of the variables social pressure and involvement. The manipulation of these variables results in four different articles as shown below.

Table 1

Conditions

	Involvement	
Social Pressure	High	Low
High	II Europe General knowledge requested	III Asia General knowledge requested
Low	I Europe No general knowledge requested	IV Asia No general knowledge requested

Measures

Three different sets of items were assessed in the study. The first set of questions referred to information seeking behavior, one of the two constructs used to measure the independent variable information seeking. Respondents were asked to choose between four different website links. Two links were relevant to the article before. These links indicated information seeking behavior. The other two links were not relevant, and thus did not indicate information seeking behavior. These links were, however, interesting links about topics students were supposed to find interesting. Successively, students were asked to fill in a questionnaire. This questionnaire measured responses on a five point scale , with one indicating that the respondent highly disagreed with a given thought or statement and five indicating that that respondents highly agreed with a given thought or statement. The questionnaire measured level of social pressure, level of involvement and adherence probability. These questions were already used and validated in another study about

information seeking behavior (Huurne, ter, 2008). Also, respondents were asked about the credibility and the understandability of both articles. Finally, they were asked to estimate their knowledge about the article about the previous read article about avian influenza.

Social pressure. Social pressure was measured with a reliable four item scale (α=0,699). Respondents were asked if they thought that people in their environment saw it as important that they were informed about risks as H5N1, if they thought it was expected from them to know something about this topic, if they were commonly inclined to what others expected from them and if they found the meaning of others important for themselves. The first set of items in this scale was used to see whether or not there was a difference between the high and low social pressure conditions. The last two items, on the other hand, were used to asses if respondents were influenced by social pressure.

Involvement. Involvement was measured using a reliable four item scale (α=0,812). Respondents were asked how committed they felt with the topic, how important they find it to have information about the described risk, and to what extent they were interested in the consequences of H5N1. Furthermore, they were asked to estimate how severe the consequences of a pandemic as described would be for them personally. These questions served to see whether the difference in involvement between the respondents given the Europe and Asia condition, did occur as expected.

Adherence probability. Adherence probability was measured using a two-item scale (r=0.717, α=0.835). Respondents were asked how likely they were to take precautions if the risk occurred and whether or not they would adhere to given instructions.

Information seeking intention. Information seeking intention was also measured with a reliable two item scale (r=0.625, α=0.77). Participants were asked to judge the probability that they would search information about the risk and to report the likelihood of them keeping informed about similar events.

Credibility. Credibility was assessed using a two item scale asking participants to separately judge the credibility of both articles.

Understandability. Understandability was assessed by asking participants how understandable they judged each article.

Perceived Knowledge. Perceived Knowledge was assessed with one item. Participants were asked to rate their perceived level of knowledge of the article.

The last question was used to assess how much knowledge participants in the different conditions received from the WHO article. Therefore, participants received 15 true/false

questions about the article. Two different versions of the quiz were established to fit the participants' knowledge derived in one of the two versions of the article.

Results

Descriptive statistics. There were no significant differences between the four conditions in gender (F(3,96)=1.78,p=0.16), university (F(3,96)=2.13,p=0.1), study (F(3,96)=1.85,p=0.14), nationality (F(3,96)=1.16,p=0.33), province (F(3,96)=0.33,p=0.8) or age (F(3,96)=1.4,p=0.24).

Table 1

Pearson correlations obtained in the experiment

	1.	2.	3.	4.	5.	6.	7.	8.
1. Condition	1							
2. Quizscore	-0,109	1						
3.Social Pressure	-0,061	,510(**)	1					
4. Involvement	-0,191	,308(**)	,348(**)	1				
5. Adherence	,329(**)	,490(**)	,448(**)	,516(**)	1			
6. Information Seeking Intention	0,008	,457(**)	,348(**)	,550(**)	,651(**)	1		
7. Understandability	0,061	,366(**)	0,141	,261(**)	0,178	,335(**)	1	
8. Credibility	0,028	0,186	,302(**)	,211(*)	,363(**)	0,178	,356(**)	1
9. Information Seeking Behavior	-0,045	-0,033	-0,018	-,207(*)	-0,153	-0,091	-0,117	0,094

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Tabel 2

Mean scores and standard deviations

	I	II	III	IV	Total
Quizscore	M=9.76	M=10,8	M=9,65	M=9,32	M=9,89
	SD=2,83	SD=2,84	SD=2,19	SD=2,9	SD=2,73
Social Pressure	M=2,96	M=3,05	M=3,16	M=2,79	M=2,99
	SD=0,75	SD=0,74	SD=0,65	SD=0,74	SD=0,72
Involvement	M=3,25	M=3,4	M=2,83	M=2,96	M=3,11
	SD=0,75	SD=0,73	SD=0,76	SD=0,8	SD=0,78
Adherence	M=3,36	M=3,24	M=2,78	M=2,78	M=2,99
	SD=1,08	SD=1,0	SD=0,74	SD=0,74	SD=0,97
Information	M=3,24	M=3,3	M=3,02	M=3,3	M=3,22
Seeking Intention	SD=0,96	SD=0,98	SD=0,83	SD=0,85	SD=0,9
Understandability	M=3,82	M=3,92	M=3,76	M=3,98	M=3,87
	SD=0,61	SD=0,51	SD=0,64	SD=0,73	SD=0,62
Credibility	M=3,8	M=3,7	M=3,76	M=3,98	M=3,87
	SD=0,76	SD=0,54	SD=0,64	SD=0,73	SD=0,62

Effects of manipulation

The four different conditions were supposed to create different levels of social pressure and involvement. To be able to rule out the possibility that differences in the understandability and credibility of the articles bias the results, conditions were expected not to differ with regard to these two factors. Information seeking, by contrast, was expected to be significantly higher in the groups high on one or both factors.

Social Pressure. Social Pressure was expected to be higher in the second and third condition. Contrary to the expectations, the results show no significant difference between the four conditions ($F(3,96)=1.26, p=0.29$). No interaction effect was found. No statistic significance was found between genders in the different groups ($F(1,99)=1.926, p=0.17$).

Involvement. Involvement was expected to be higher in the first two conditions. The effect of involvement was found with a tendency to significance with two sided testing. However, one should consider that in an appropriate one sided test, the expected effect would be significant on a 0,05 level. Therefore we can conclude that the conditions that were supposed to create higher levels involvement (M=3,25 and M=3,4) actually lead to

higher involvement than conditions that were supposed to have low involvement (M=2,93 and M=2,65).

Credibility. Both articles were perceived as credible (M=3,7 and M=3,86). No differences between the groups were found. (F(3,96)=0.37,p=0.78 and F(3,95)=0.21,p=0.9).

Understandability. Both articles were perceived as very understandable (M=4.15 and M=3.6). No differences between the groups were found. (F(3,95)= 2.11,p=0.11) and (F(3,96)=0.33,p=0.80).

Information seeking. The four different conditions were supposed to create different levels of information seeking. Both Information Seeking Behavior and Information Seeking Intention were supposed to be higher in the conditions that were high on social pressure and/or involvement. The highest level of both factors was expected in condition three because both factors were high in this condition.

In the study, however, no significant differences were found in neither Information Seeking Behavior (F(3,96)=1.32,p=0.27) nor Information Seeking Intention (F(3,96)=0.39,p=0.76). Therefore it can be assumed that the different conditions had no significant effect on Information Seeking in the study.

Testing of hypotheses

Three different hypotheses were tested in the study.

Hypothesis 1: According to Hypothesis 1, high social pressure will lead to higher levels of adherence. Because of this reason, participants in condition two and three should be motivated more to seek relevant information than participants in group one and four.

Although the groups were significantly different (F(3,95)=4,1,p=0,09), Hypothesis 1 can not be supported, because no main effect existed when both groups high on social pressure (2 and 3) were compared with the control groups (F(1,97)=0,02,p=0.88). No interaction effects were found. Based on these results, it can not be concluded that Social Pressure influences Individuals to seek risk relevant information in this study.

Hypothesis 2 states that a message high on involvement will create better adherence than a message low on involvement. Therefore, individuals in group one and two were expected to show a higher degree of adherence than participants in the other two groups.

In concordance with these expectations, a tendency to significance was found with two sided testing ($F(3,95)=4.098, p=0.09$). When a one-sided test is used, group one and two differ significantly from groups three and four on a 0,05 level. Therefore it can be concluded that adherence probability is higher in condition one ($M=3.36$) and two (3.24) than in group three ($M=2.78$) and four ($M=2.58$). According to these results, hypothesis 2 can be supported.

Hypothesis 3 assumes that high levels of involvement will lead to a high level of remembrance. Therefore, participants in group one and two were expected to remember more of the presented article and therefore perform better in the quiz than the other two groups. Contrary to this findings, however, no significant difference was found between the different conditions ($F(3,96)=1.51, p=0.22$). Therefore we can not conclude that involvement leads to better remembrance and can not support hypothesis three.

Perceived Knowledge. Perceived Knowledge was medium ($M=2.88$). No differences between the groups were found ($F(3,96)=1.12, p=0.35$. Therefore, we can conclude that the conditions did not differ in their perceived amount of knowledge. This is in concordance with the fact that no differences were found in quiz scores neither. Scores on the quiz did not differ between the conditions ($F(3,96)=1.52, p=0,22$. The mean score (M) was 9,84.

Discussion

The main purpose of this experiment was to study the influence of the factors Social Pressure and Involvement on Adherence Probability and the influence of the factor Involvement on Remembrance. To study the effect of these factors, different levels of both factors had to be created. A high level of social pressure was to be created through informing participants that general knowledge could be required in an interview for a job. In the low condition, by contrast, participants were given a tip concerning female behaviour in an interview for a job. Although the source was judged very understandable and credible throughout all conditions, no significant effect was found in creating social pressure. Different explanations can be given why the manipulation failed to create a significant difference in social pressure. The most probable one is that the manipulation was not strong enough. First of all, it is possible that the manipulation was not apparent enough for participants to recognize due to its position and/or size. Second, it could also be possible that the subject did not matter to participants sufficiently. Due to the fact that all participants in the experiment were students, it can be assumed that this was the case

because they either already possessed sufficient knowledge or did not perceive the subject as interesting for them at the moment. Due to these possibilities, it would have been useful to add items to assess participant's state of knowledge about job interviews as well as their current perception of its importance. The possibility that the tip about female behaviour in fact was not perceived as neutral by females can be ruled out due to the fact that no differences in social pressure existed between the genders within both low conditions.

Another, more general explanation could be that 72 per cent of participants were Psychology students and thus can be expected to have some prior experience in the construction of experiments. Although the credibility of the application tips was perceived very high, it is possible that respondents were able to identify the link between the tip that knowledge about H5N1 could be required in an interview for a job and the information provided about this topic in the second article. Possibly, this could have led to a lesser degree of experienced social pressure due to the fact they considered the information presented rather as a part of the experiment than as actual tips for an application. For that reason, it would have been useful to ask participants whether or not they had an idea about the purpose of the experiment at the end of the survey and to take this into consideration with regard to both manipulations.

To create high levels of involvement, participants were presented an article that informed them about the worldwide danger of *Influenza A* viruses and the H5N1 virus. In addition, they were shown a table of victims that came from the same province and were approximately the same age as the respondents. When a two-sided test was used, involvement had a tendency to significance to be higher in the high involvement conditions. When a one-sided test was used, however, involvement was significantly higher in the high involvement conditions (on a 0,05 level). An interesting finding was that both groups in the low involvement condition scored higher on involvement than expected: although it can not be assumed that one or more participants had a direct relation to the Asian continent, the majority in both groups stated to feel somewhat involved. With regard to Johnson's (2005) finding that involvement represents the personal importance, interest and significance of the risk topic to the individual it can be assumed that the low involvement conditions had a considerable influence on participant's perception of the risk. The most probable explanation for this outcome is that participants in the low involvement condition still felt threatened by the described situation. This could be due to participant's knowledge of prior cases of H5N1 in Europe or the understanding that the described virus hardly could be constricted to the Asian continent. Other possibilities could be that

participants felt threatened by indirect consequences of a pandemic on the Asian continent or that the high level of involvement resulted from compassion with the at-risk population. To make a reliable estimate of how and to what extend the two low involvement conditions did create involvement, it would have been helpful to add items that measure to what degree participants perceived a pandemic on the Asian continent to hold direct and indirect consequences for them. Other useful questions would have been to ask participants if they believed that a pandemic could actually be contained on one continent and in how far they felt compassionate with the at–risk-population. Contrary to the expectations, no higher degrees of information seeking behaviour or information seeking intention were created to in the two high involvement conditions. With regard to the fact that involvement was relatively high throughout the conditions, however, the results still are supported by the Elaboration Likelihood Model (Petty and Cacioppo, 1986). According to the model, individuals will elaborate information extensively via the so-called central route when involvement is high. Therefore we can conclude that this was the case in all four conditions.

As stated in the first hypothesis, messages high on social pressure were expected to create better adherence than messages low on social pressure. In the experiment, however, no significant difference between control group and experimental group was found. Therefore, the first hypothesis can not be supported. The most probable explanation for this outcome is that no significant differences in social pressure existed between the conditions. Therefore, no valid assumptions can be made about the influence of social pressure on adherence.

The second hypothesis stated that a message high on involvement will create better adherence than a message low on involvement. Because of the fact that adherence was significantly higher in the high involvement conditions than in the low involvement conditions, hypothesis two can be supported. Since involvement only was significant on a one-sided test, the same test was used to measure differences in adherence probability.

According to the third hypothesis, a message high on involvement will create a higher degree of remembrance than a message low on involvement. This hypothesis was not supported by the data. This poses a contrast to the work of Petty and Cacioppo (1981) and Eagly and Chaiken (1993). To explain these outcomes, a number of potential explanations need to be taken into account. First of all, it is important to consider the high degree of involvement in both groups. According to the authors named above, issues that are judged as personally relevant or important are likely to generate more systematic processing and

therefore can be expected to lead to better processing. Due to the fact that participants in all four conditions were found to be involved to a considerable degree, it is possible that all groups were sufficiently involved to process the given information systematically. Another possible explanation for these outcomes could be the limited discriminative validity of the test. It is possible that a longer and/or better constructed test could have measured the differences between the high and low involvement conditions more accurately. The finding that no between-group differences were found with regard to perceived knowledge indicates consistency between perceived and actual knowledge.

Conclusion

Based on the findings as well as on the shortcomings of this experiment, several propositions can be made regarding both the implementation and the focus of further research. With regard to our own inability to create social pressure, experimenters are advised to make sure that the manipulations they use are sufficient in strength, size and visibility. In addition, it should be assured that the subject matches participant's interest and that participant's possible experience with test construction does not interfere with the presented information. If the use of a pre-test is not possible due to the limited extend of the study, experimenters at least should add items to control for these factors. In case information about a large-scaled and potentially multidimensional risk is used for manipulation, it would also be beneficial to try to take into account all direct and indirect stakes participants have in the described situation to avoid unexpected effects. An interesting implication for research would be to identify different dimensions of involvement and to study their distinctive effects on adherence probability. For example, it would be interesting to study the different influence of direct and indirect involvement on adherence probability. Although hypothesis two could not be supported and no valid assumptions were made about the influence of social pressure on adherence probability, it does not mean that no significant influence can be found in future. Therefore, we encourage future researchers into this topic. With regard to the Elaboration Likelihood Model (Petty and Cacioppo, 1986) it would also be of interest to study if a kind of involvement threshold exists or if elaboration can increase further after the threshold to central processing is reached. Possibly, the effect of different dimensions of involvement on information processing could also be studied with regard to the model.

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Appendix 1: Low involvement

SOLLICITEREN EN DE EERSTE INDRUK: VIJF TIPS

De eerste indruk is ontzettend belangrijk. Je hebt maar één kans om een eerste indruk te maken. Doe het dus goed! Nobiles geeft je onderstaande tips:

1. De eerste indruk maak je met je sollicitatiebrief. Natuurlijk zorg je ervoor dat deze brief in intelligent en foutloos Nederlands is opgesteld.

2. Mensen kennen aan aantrekkelijke mensen allerlei positieve eigenschappen toe. Minder aantrekkelijke mensen moeten het – gechargeerd gesteld - doen met kwalificaties als lui, geniepig en dom. Het loont dus om er op je paasbest uit te zien. De uiterlijke aantrekkelijkheid speelt vooral een rol als kandidaat niet goed gekwalificeerd is. Zijn je kwalificaties goed tot uitstekend, dan speelt het uiterlijk geen rol.

3. Lichaamstaal is belangrijk. Het recht in de ogen kijken van gesprekspartners wordt gezien als een indicator van een sterk karakter. Veel gebaren, vrijuit spreken en een positieve gezichtsuitdrukking worden ook positief beoordeeld.

4. Pieker niet over de indruk die je maakt, maar richt je op de ander. Toon interesse, stel vragen. Dat wordt niet alleen gewaardeerd, je doet zo ook informatie op die je helpt beslissen of dit bedrijf bij je past.

5. Solliciteer je als vrouw voor een leidinggevende positie, dan word je geacht eigenschappen te laten zien die strijdig zijn met de eigenschappen die traditioneel aan vrouwen worden toebedacht. Aantrekkelijke vrouwen worden namelijk niet geschikt gevonden voor leidinggevende functies. Kleed je dus niet te aantrekkelijk en liefst zakelijk wanneer je solliciteert voor een management traineeship.

Appendix 2: High involvement

SOLLICITEREN EN DE EERSTE INDRUK: VIJF TIPS

De eerste indruk is ontzettend belangrijk. Je hebt maar één kans om een eerste indruk te maken. Doe het dus goed! Nobiles geeft je onderstaande tips:

1. De eerste indruk maak je met je sollicitatiebrief. Natuurlijk zorg je ervoor dat deze brief in intelligent en foutloos Nederlands is opgesteld.

2. Mensen kennen aan aantrekkelijke mensen allerlei positieve eigenschappen toe. Minder aantrekkelijke mensen moeten het – gechargeerd gesteld - doen met kwalificaties als lui, geniepig en dom. Het loont dus om er op je paasbest uit te zien. De uiterlijke aantrekkelijkheid speelt vooral een rol als kandidaat niet goed gekwalificeerd is. Zijn je kwalificaties goed tot uitstekend, dan speelt het uiterlijk geen rol.

3. Lichaamstaal is belangrijk. Het recht in de ogen kijken van gesprekspartners wordt gezien als een indicator van een sterk karakter. Veel gebaren, vrijuit spreken en een positieve gezichtsuitdrukking worden ook positief beoordeeld.

4. Pieker niet over de indruk die je maakt, maar richt je op de ander. Toon interesse, stel vragen. Dat wordt niet alleen gewaardeerd, je doet zo ook informatie op die je helpt beslissen of dit bedrijf bij je past.

5. Wees op de hoogte van actuele gebeurtenissen. Niet alleen interesse in de bedrijf, maar ook algemene interesse wordt op prijs gesteld. Vragen als "wie is de buitenminister van de VS" of "Waarom is die influenza A virus zo gevaarlijk" worden vaak gebruikt om algemene kennis te meten. Geef geen persoonlijke mening, maar alleen feiten.

Appendix 3:Low involvement

According to many experts, pandemic influenza (wereldwijde griep epidemie) today is the most significant global public health emergency caused by a naturally occurring pathogen.
Lacking a proof-reading mechanism, Influenza A viruses undergo constant stepwise changes in their genetic make-up. This so called antigenic drift enables the swapping of co infection with human and avian (pluimvee) influenza viruses. As this occurs, it will create a new "hybrid" virus that will be entirely or largely unfamiliar to the human immune system. If this new "hybrid" virus contains the right mix of genes, it can cause severe disease with an easy sustainable human-to-human transaction. This will ignite a pandemic. Pandemics are rare but recurring events, associated with great morbidity, significant mortality, and considerable social and economic disruption. Given the vulnerability of the population and the highly contagious nature of influenza viruses, all parts of the world can become rapidly infected.

Of all viruses in the vast avian influenza pool, H5N1 is of particular concern for human health for two reasons. First, H5N1, though strictly an avian pathogen, has a documented ability to pass directly from birds to humans. Second, once in humans, H5N1 causes severe disease with very high mortality. These two features combine to make H5N1 of concern for a third and greater reason: its potential to ignite an especially severe pandemic.
During 2004, large parts of Europe experienced unprecedented outbreaks of highly pathogenic avian influenza, caused by the H5N1 virus, in poultry (pluimvee). The confirmation of human cases gave the outbreaks a new dimension. They were now a health threat to populations in affected countries and, possibly, throughout the world. All prerequisites for the start of a pandemic had been met save one, namely the onset of efficient human-to-human transmission. Should the virus improve its transmissibility, everyone in the world would be vulnerable to infection by a

a pathogen - passed along by a cough or a sneeze - entirely foreign to the human immune system.

[...] The massive control efforts had an impact, and the outbreaks declined sharply during March except in Thailand, where sporadic outbreaks continued to be reported through April. Predictably, new human cases dwindled then ceased, with the last occurring in mid-March in Viet Nam. From January through March, Viet Nam and Thailand together reported 35 cases, of which 24 were fatal.

Table 1. Human cases, Viet Nam

First phase

No.	Sex	Age	Province	Onset	Outcome
1	female	25 years	Ha Nam	25.12.03	died 30.12.03
2	male	16 years	Ha Tay	29.12.03	died 11.01.04
3	female	21 years	Ha Tay	1.01.04	died 9.01.04
4	male	18 years	Ha Nam	23.12.03	died 8.01.04
5	female	8 years	Ha Nam	11.01.04	died 17.01.04
6	female	24 years	Ha Nam	13.01.04	recovered
7	male	13 years	Ho Chi Minh City	14.01.04	died 22.01.04
8	female	23 years	Thai Binh	10.01.04	died 23.01.04
9	female	30 years	Ha Nam	10.01.04	died 23.01.04
10	male	19 years	Ha Tay	11.01.04	recovered
11	female	20 years	Bac Giang	9.01.04	recovered
12	male	18 years	Ha Nam	25.01.04	died 2.02.04
13	female	16 years	Lam Dong	21.01.04	died 3.02.04
14	female	17 years	Ha Tay	12.01.04	died 27.01.04
15	female	27 years	Ha Tay	24.01.04	died 3.02.04
16	male	24 years	Thai Binh	29.01.04	died 3.02.04
17	male	23 years	Ha Nam	28.01.04	recovered
18	male	28 years	Ha Tay	29.01.04	died 9.02.04
19	male	22 years	Ha Nam	31.01.04	recovered
20	male	15 years	Tanh Hoa	9.02.04	recovered
21	male	4 years	Thai Binh	5.02.04	died 18.02.04
22	female	16 months	Ha Nam	14.02.04	recovered
23	male	21 years	Dong Nai	10.03.04	died 15.03.04

The H5N1 virus has given us not only a clear warning but time to enhance preparedness. During 2004, concern about the threat of a pandemic set in motion a number of activities, coordinated by WHO, that are leaving the world better prepared for the next pandemic.
[…] Further it is crucially important, that individuals comply with a wide range of medical(e.g. vaccinations) and non-medical interventions (personal hygiene, wearing masks and quarantine) that can potentially reduce opportunities for transmission at the start of a pandemic and slow international spread.

Appendix 4: High involvement

According to many experts, pandemic influenza (wereldwijde griep epidemie) today is the most significant global public health emergency caused by a naturally occurring pathogen.
Lacking a proof-reading mechanism, Influenza A viruses undergo constant stepwise changes in their genetic make-up. This so called antigenic drift enables the swapping of co infection with human and avian (pluimvee) influenza viruses. As this occurs, it will create a new "hybrid" virus that will be entirely or largely unfamiliar to the human immune system. If this new "hybrid" virus contains the right mix of genes, it can cause severe disease with an easy sustainable human-to-human transaction. This will ignite a pandemic. Pandemics are rare but recurring events, associated with great morbidity, significant mortality, and considerable social and economic disruption. Given the vulnerability of the population and the highly contagious nature of influenza viruses, all parts of the world can become rapidly infected.

Of all viruses in the vast avian influenza pool, H5N1 is of particular concern for human health for two reasons. First, H5N1, though strictly an avian pathogen, has a documented ability to pass directly from birds to humans. Second, once in humans, H5N1 causes severe disease with very high mortality. These two features combine to make H5N1 of concern for a third and greater reason: its potential to ignite an especially severe pandemic.
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[...] The massive control efforts had an impact, and the outbreaks declined sharply during March except in France, where sporadic outbreaks continued to be reported through April. Predictably, new human cases dwindled then ceased, with the last occurring in mid-March in the Netherlands. From January through March, France and the Netherlands together reported 35 cases, of which 24 were fatal.

Table 1. Human cases, the Netherlands

First phase

No.	Sex	Age	Province	Onset	Outcome
1	female	25 years	Overijssel	25.12.03	died 30.12.03
2	male	16 years	Gelderland	29.12.03	died 11.01.04
3	female	21 years	Gelderland	1.01.04	died 9.01.04
4	male	18 years	Overijssel	23.12.03	died 8.01.04
5	female	8 years	Overijssel	11.01.04	died 17.01.04
6	female	24 years	Overijssel	13.01.04	recovered
7	male	13 years	Zeeland	14.01.04	died 22.01.04
8	female	23 years	Flevoland	10.01.04	died 23.01.04
9	female	30 years	Overijssel	10.01.04	died 23.01.04
10	male	19 years	Gelderland	11.01.04	recovered
11	female	20 years	Noord-Brabant	9.01.04	recovered
12	male	18 years	Overijssel	25.01.04	died 2.02.04
13	female	16 years	Groningen	21.01.04	died 3.02.04
14	female	17 years	Gelderland	12.01.04	died 27.01.04
15	female	27 years	Gelderland	24.01.04	died 3.02.04
16	male	24 years	Flevoland	29.01.04	died 3.02.04
17	male	23 years	Overijssel	28.01.04	recovered
18	male	28 years	Gelderland	29.01.04	died 9.02.04
19	male	22 years	Overijssel	31.01.04	recovered
20	male	15 years	Utrecht	9.02.04	recovered
21	male	4 years	Flevoland	5.02.04	died 18.02.04
22	female	16 months	Overijssel	14.02.04	recovered
23	male	21 years	Drenthe	10.03.04	died 15.03.04

The H5N1 virus has given us not only a clear warning but time to enhance preparedness. During 2004, concern about the threat of a pandemic set in motion a number of activities, coordinated by WHO, that are leaving the world better prepared for the next pandemic.
[…] Further it is crucially important, that individuals comply with a wide range of medical (e.g. vaccinations) and non-medical interventions (personal hygiene, wearing masks and quarantine) that can potentially reduce opportunities for transmission at the start of a pandemic and slow international spread.

Appendix 5: Demographics

1. Wat is uw geslacht?

- Man
- Vrouw

2. In welke instelling zit u?

- Utwente
- Saxion Hogeschool

andere, namelijk:

3. Welke opleiding volgt u?

- PSY
- TCW
- EDMM

andere, namelijk:

4. Wat is uw nationaliteit?

- Nederlands
- Duits

andere, namelijk:

5. In welke provincie woont u?

- Overijssel

andere, namelijk:

6. Wat is uw leeftijd?

Appendix 6: link choice

1. Zou u nu de keuze willen maken tussen 1 van de 4 sites hieronder? Dit kunt u doen door erop te klikken!

- http://www.cdc.gov/flu/protect/antiviral/
- http://www.who.int/csr/disease/influenza
- www.kiesjestudie.nl
- www.rtl.nl/reality/beautyendenerd/

Appendix 7: Questionnaire

1. U hebt net een artikel over de gevaren van H5N1 gelezen. Geef nu aan, in hoeverre u eens bent met volgende stellingen:

	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
Ik voel me betrokken bij dit risico	☐ Helemaal niet	☐ Nauwelijks	☐ Enigszins	☐ Nogal	☐ Heel erg
Ik vind het belangrijk informatie te hebben over het desbetreffende risico	Helemaal niet ☐	Nauwelijks ☐	Enigszins ☐	Nogal ☐	Heel erg ☐
Ik ben geïnteresseerd in de gevolgen van H5N1	Helemaal niet	☐ Nauwelijks	☐ Enigszins	☐ Nogal	☐ Heel erg

2. Hoe ernstig zullen de gevolgen van een pandemie zoals beschreven voor u zijn?

	Helemaal niet ernstig	Niet echt ernstig	Enigszins ernstig	Nogal ernstig	Zeer ernstig
Als er een Pandemie zoals in het artikel uitbreekt, zijn de gevolgen voor mij	☐ Helemaal niet ernstig	☐ Niet echt ernstig	☐ Enigszins ernstig	☐ Nogal ernstig	☐ Zeer ernstig

3. Hoe denkt u, dat mensen die belangrijk voor u zijn met informatie over pandemieën omgaan?In hoeverre bent u eens met de volgende stellingen?

	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
Mensen in mijn omgeving vinden dat ik op de hoogte moet zijn van risico's als H5N1.	☐ Helemaal niet	☐ Nauwelijks	☐ Enigszins	☐ Nogal	☐ Heel erg
Er word van mij verwacht dat ik wat weet over dit onderwerp.	☐ Helemaal niet	☐ Nauwelijks	☐ Enigszins	☐ Nogal	☐ Heel erg
In het algemeen ben ik geneigd om te doen wat andere van mij verwachten.	☐ Helemaal niet	☐ Nauwelijks	☐ Enigszins	☐ Nogal	☐ Heel erg
De mening van mensen om mij heen is belangrijk voor mij.	☐ Helemaal niet	☐ Nauwelijks	☐ Enigszins	☐ Nogal	☐ Heel erg

4. Wanneer ik lees over een pandemie als beschreven in het artikel, dan

	Zeer klein	Nogal klein	Niet klein/niet groot	Nogal groot	Zeer groot
Is de kans dat ik voorzorgmaatregelen neem	☐ Zeer klein	☐ Nogal klein	☐ Niet klein/niet groot	☐ Nogal groot	☐ Zeer groot
Is de kans dat ik gegeven instructies opvolg	Zeer klein ☐	Nogal klein ☐	Niet klein/niet groot ☐	Nogal groot ☐	Zeer groot ☐
Is de kans dat ik informatie zoek over	☐ Zeer klein	☐ Nogal klein	☐ Niet	☐ Nogal	☐ Zeer groot

	Zeer klein	Nogal klein	Niet klein/niet groot	Nogal groot	Zeer groot
dit onderwerp			klein/niet groot	groot	
Is de kans dat ik informatie over dergelijke risico's in de gaten houd	Zeer klein	Nogal klein	Niet klein/niet groot	Nogal groot	Zeer groot

5. Hoe BEGRIJPELIJK vond u

	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
de sollicitatie tips	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
het WHO artikel	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg

6. Hoe GELOOFWAARDIG vond u

	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
de sollicitatie tips	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
het WHO artikel	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg

7. Tenslotte zouden wij graag van U willen weten hoeveel KENNIS u denkt te hebben over het gelezen artikel.

	Zeer weinig	Weinig	Enigszins	Veel	Zeer veel
De hoeveelheid kennis die ik heb over het gelezen artikel is	Zeer weinig	Weinig	Enigszins	Veel	Zeer veel

Appendix 8: Quiz. (high involvement)

1. Pandemic influenza today is the most significant global public health emergency caused by a naturally occurring pathogen.
2. There were 38 cases, of which 25 were fatal.
3. The most outbreaks were in Overijssel and Gelderland.
4. H5N1 has a strong proof-reading mechanism.
5. H5N1 is not yet transmissible from human to human.
6. H5N1 is not a strictly avian pathogen.
7. Antigenic drift is de transaction from avian pathogens on humans.
8. All prerequisites for the start of a pandemic have been met in France and the Netherlands.
9. Pandemics are associated with considerable social and economic disruption.
10. All influenza viruses are "hybrids".
11. Vaccination, wearing masks and personal Hygiene can potentially reduce opportunities for transmission. 12. Wearing masks and providing masks are both medical interventions.
13. The most victims were in Thailand.
14. Human to human transaction is the reason for genetic drift.
15. The WHO coordinates the preparation for the next pandemic.

Appendix 9: Quiz (low involvement)

1. Pandemic influenza today is the most significant global public health emergency caused by a naturally occurring pathogen.

2. There were 38 cases, of which 25 were fatal.
3. The most outbreaks were in Ha Nam and Ha Tay.
4. H5N1 has a strong proof-reading mechanism.
5. H5N1 is not yet transmissible from human to human.
6. H5N1 is not a strictly avian pathogen.
7. Antigenic drift is de transaction from avian pathogens on humans.
8. All prerequisites for the start of a pandemic have been met in Thailand and Viet Nam.
9. Pandemics are associated with considerable social and economic disruption.
10. All influenza viruses are “hybrids”.
11. Vaccination, wearing masks and personal Hygiene can potentially reduce opportunities for transmission. 12. Wearing masks and providing masks are both medical interventions.
13. The most victims were in Thailand.
14. Human to human transaction is the reason for genetic drift.
15. The WHO coordinates the preparation for the next pandemic.

Universiteit Twente
de ondernemende universitei

Bachelorthese

Social Pressure and Involvement –
to what Extend do these Factors influence Adherence Probability?

Enschede, Universiteit Twente – Faculteit Gedragswetenschappen

Abstract

In this experimental study, a 2x2 between subject design was used to create different levels of the factors social pressure and involvement to study its' effect on information seeking in general and on adherence probability in specific. Furthermore, the effect of involvement on remembrance was studied.

Due to the fact that the survey failed to create different levels of social pressure, no assumptions can be made with regard to this factor. Involvement, however, was found to have a significant effect on adherence probability. No effect on remembrance was found. Information seeking behaviour did not differ significantly differ between the groups, but was found to be high in all conditions. This is probably caused by the high levels of involvement throughout all conditions.

Key words: risk information; social pressure; involvement; adherence probability; remebrance

Introduction

In the last years, people's view of risks has changed dramatically. Individuals became more aware of and concerned about the risks they experience in their daily lives. In modern, highly industrialized countries, risk became a topic of nearly universal importance (Hampel, 2006). Nowadays, people are confronted with new and large-scaled risks that either are by-products of modern technology as pesticides or nuclear radiation or are influenced and amplified by them. As a consequence of international travel, dangerous pathogens as SARS and H5N1 are now able to cross geographical boundaries that limited their spread in the past. And due to satellite communications and the widespread accessibility of the internet, people all over the world can learn about any given risk within hours. This leads to a constant feeling of anxiety in society (Ropeik, 2004). To reduce feelings of anxiety, effective mass media campaigns are crucially important. In earlier days, communicating risk to the public used to be driven by expert conceptualisations of public information needs (Griffin, Dunwoody, & Neuwirth, 1999) and followed the assumption that most people do not posses sufficient knowledge of science and technology to be capable of judging risks and benefits (Gregory and Miller, 1998). Following this so-called "top-down" approach, risk communication simply used to stress possible threats and recommended behaviours to reduce these threats while the role of the receiver was neglected (Fessenden-Raden, Fitchen,& Heath, 1987). In more recent years, a different view of risk communication evolved: the "bottom up" approach. This approach tends to be more receiver-oriented and assumes that individuals will actively search information if it is relevant and useful to them in some way (Sjöberg, 2002). Although this approach does not propose that "top down" messages are completely ineffective, it states that risk communication is bound to fail if researchers and practitioners do not understand the interaction between message characteristics and audiences´ information processing characteristics (Griffin et al, 1999). Therefore, it is important to understand the ways various audiences and audience segments seek and process the risk information they encounter in the media and other communication channels (Griffin et al, 1999).

The aim of this experimental study was to find out to what extend differences in message characteristics influence individual adherence probability and remembrance of the message. Therefore, a survey with four different messages was created to evoke different levels of the factors social pressure and involvement to study its' effect on adherence probability and remembrance. In the last 25 years, a number of general models have been

proposed to explain information seeking behaviour and interacting variables. But rather than describing the same set of activities, these models rather represent different aspects of the same general outcome. Therefore, the frameworks are complementary, rather than competing (Wilson, 1999). In 1981, Wilson proposed that the information need is not a primary one but a secondary need. It arises out of needs from environmental, social and person-related variables. He also stated that the same context that leads to information seeking behaviour also gives ground to the rise of barriers that impede the search for information. In contrast, the sense making theory (Dervin, 1999) focuses on an information gap between a situation in time and a planned outcome and a bridge as mean to close the gap. The gap is both a barrier to sense making and a prompt to action, for example to undertake information seeking.

In 2006, Godbold combined Wilson's and Dervin's frameworks in the so-called "Extended Model of Information Seeking Behaviour". In this framework, a person in a certain situation stands at the information gap, contemplating the gap and the need for sense making. Based on the decision derived from his or her conclusion, the person then undertakes some course of action to make sense by employing one or more of a full range of options for handling information. Therefore, the existence of an information gap is not only influenced by information seeking behaviour, but also by factors as the importance of satisfying the need (e.g. perceived involvement and personal relevance) and the availability of information sources.

But because these theories explain information behaviour only in general terms and do not search for separate entities that affect this kind of behaviour, no explicit claims can be made. In 1999, Griffin et al proposed a more specific model of risk information seeking and processing (RISP). Based on parts of the Heuristic-Systematic Model (Eagly and Chaiken, 1993) the Theory of Planned Behaviour (Ajzen, 1991) and mass media research, RISP proposed a variety of variables that might predispose an individual to seek and process information in various risk settings (Griffin et al, 1999). The model also states that different individuals have different levels of amount of information they believe they need in order to feel confident to judge a given risk. According to the model, information seeking and processing is directly affected by 3 factors: Information Sufficiency, Relevant Channel Beliefs and Perceived Information Gathering Capacity. In addition, the indirect factors Affective Responses, Informational Subjective Norms, Perceived Hazard Characteristics and Individual Characteristics are also influential for information processing and seeking.

*Social Pressure.*According to Atkin (1972), the assumption that significant others (i.e. family and friends) are knowledgeable about an issue might stimulate the individual to seek information. Individuals faced with risky situations are inclined to base their decisions on which behaviour to pursue first by considering what other people do and possible reactions of family, friends, and others are seen as great influences of these decisions (Neuwirth and Frederick, 2004). An individual's perception that relevant others think that he or she should (or should not) perform a particular behaviour can be at least as important as predictor of behaviour as the person's own cognitions and attitudes about performing the behaviour (Ajzen and Fishbein, 1980; Fishbein and Ajzen, 1975).

RISP proposes, that informational subjective norms might affect information sufficiency and therefore indirectly predict to ones motivation to seek additional information or to reject information. According to the Theory of Planned Behaviour, in contrast, Normative Beliefs are supposed to directly affect a person's behavioural intentions (Ajzen, 2002). Therefore, we expect high levels of perceived social pressure to lead to higher levels of information seeking than low levels of information seeking behaviour in the experiment.

*Involvement.*Involvement represents the personal importance, interest and significance of the risk topic to the individual and therefore determines the extend to which an individual is willing to think about the topic (Johnson 2005). Research by Nathan, Heath and Douglas (1992) has shown that involvement is positively associated with the individual's willingness to gather information. When people are confronted with a threat or an uncertainty, they will evaluate whether their self interests are affected. This consequently will lead or lead not to problem recognition. Without recognition of the problem, individuals will not experience sufficient involvement and motivation to seek information (Heath, Liao, & Douglas, 1995). In the Elaboration Likelihood Model, Involvement is an important predictor of how information is processed. According to the model, the process of information can take two separate routes: When involvement is high, people elaborate information extensively via the central route and will relate to strong messages. In contrast, when involvement is low, individuals tend to use the so-called peripheral route. This means that they not extensively elaborate the information, but rather rely on environmental characteristics of the source such as perceived credibility or the quality of presentation (Petty and Cacioppo, 1986). With regard to the authors named above, we expect high levels of involvement to lead to higher levels of information seeking than lower levels of involvement. Given the influence of both independent variables apart,

we expect high levels of both factors combined to lead to the highest level of information seeking in this experiment. To judge the effectiveness of risk communication, it is necessary to find out how people respond to the campaign and whether or not they intent to adopt to the proposed risk related behaviours (Kahlor, 2003). In their study about adherence to screening recommendations in women with and without a family history of breast cancer, Rutten and Ianotti (2003) found, that issue involvement is significantly associated with adherence. Further is proposed, that both a reported family history of breast cancer and perceived vulnerability were positively associated with repeated mammography participation (Lerman, 1990). In Social Cognitive Theory, norms influence behavior anticipatory by the social consequences they provide. Behavior that fulfils social norms gains positive social reactions and thus provides further self incentives and contributes to adherence to healthful behavior. Behavior that violates social norms, in contrast, brings social censure and will guide to non-adherence (Bandura, 1986). Although these research outcomes are all based on health issues, we therefore expect both social pressure and involvement to influence on adherence.

*Hypothesis 1.*A message with high social pressure will create better adherence than a message with low social pressure.

*Hypothesis 2.*A message high on involvement will create better adherence than a message with low involvement.

Another important aspect within risk communication is how much an individual remembers in the different conditions. An issue judged to be personally relevant or important is more likely to generate more systematic processing than an issue considered less important and relevant (Petty and Cacioppo, 1981: Eagly and Chaiken, 1993). According to Eagly and Chaiken (1993), attitudes developed through more intense information processing are more stable and last longer than those developed through superficial processing. RISP proposes that the effort expended in gathering and especially processing information about preventive behaviours affect the stability of beliefs and attitudes about that behaviour derived through those activities (Griffin et al, 1999). We therefore expect that high levels of involvement will lead to higher levels of remembrance.

*Hypothesis 3.*A message high on involvement will create high levels of information remembrance.

Method

Materials

Two articles were used to manipulate the independent variables social pressure and involvement. After filling out several demographic questions and reading both articles, participants were asked to answer three different sets of items used to measure the dependent variables information seeking (a combination of the constructs information seeking behaviour and information seeking intention), adherence probability and remembrance.

Participants

One hundred students between 19 and 29 (mean age= 22.65) participated in the study. Eighty-eight percent were enrolled as students at Twente University, 11 per cent at Saxion Highschool and one participant at another university. There where significantly more Psychology students (72%) than TCW (19%), EDMM (3%) and other (6%) students. Although there were significantly more German than Dutch participants, the vast majority lived in the province Overijssel. No significant gender difference was found within or between the groups.

Design and Procedure

The study design was a 2 (social pressure: high vs low) x 2 (involvement: high vs low) between subject experiment. Conditions were tested one at a time. After a sufficient number of participants had completed the survey in one condition, it was into the next condition. All participants were sent the same link leading them to the experiment. After 25 respondents had completed the survey in the condition low on both factors, the first article was changed to create a condition high on social pressure and low on involvement. After another 25 respondents completed the survey, the second article was changed into the high condition as well to create a condition high on both factors. Thereafter, the condition was changed to low social pressure x high involvement after another 25 participants. After the last 25 participants completely had filled out this condition, the experiment was completed. The group manipulations will be discussed below.

At the beginning of the experiment, respondents were asked to answer some questions about their demographic background. Subsequently, they started the experiment. They first read 5 application tips provided by Nobilis.nl used to manipulate the independent variable social pressure and then a shortened version of the article: "Avian Influenza: assessing the pandemic threat" published by the WHO in 2004 which intended to manipulate the second independent variable involvement.

Social Pressure. Respondents were given 5 application tips provided by Nobilis.nl, a source expected to be reliable. The first 4 tips were general application tips concerning the letter of application, a neat appearance, the body language and the behavior during the conversation and were the same in both conditions. The 5th tip was different: The condition low on social pressure contained a tip for women applying for a leadership position, a stimulus which had no relation with the further experiment. In the high involvement condition, participants were informed that questions about recent events often were used to measure general interest and general knowledge in an interview for a job. The term Influenza A virus was explicitly mentioned to create a high level of social pressure. Therefore, we expected the tip about general interest to lead to high levels of social pressure and the tip about woman applying for a leadership position to lead to low levels of social pressure.

Involvement. Two different levels of involvement were created. Respondents received a shortened article published by the WHO (World Health Organization) which described the danger of influenza A viruses in general and of the H5N1 virus in particular. The first part of the article contained information about the nature of influenza A viruses, their possibility to change their genetic makeup and the severe consequences resulting from a mix up between human and avian viruses. Consequently, the formation, occurrence and particular danger of the H5N1 virus was stressed. To evoke high involvement, pandemic influenza was rated as a danger to the whole world in one of the two conditions. In the low involvement condition, by contrast, pandemic influenza was solely described as a danger to the Asian continent. Whereas the described cases of H5N1 were situated in Europe in the high involvement condition, they were supposed to have occurred in Asia. Furthermore, the article contained a table which showed sex, age, province and outcome (“died” or “recovered”) of the infected victims. In both conditions, most of the victims were approximately the same age as the respondents. While the majority of victims used to live

in the same province (Overijssel) as the respondents in the high involvement condition, they were claimed to have lived in provinces of Vietnam in the low involvement condition. The distribution of victims over different provinces was the same in both conditions.

In sum, 4 groups were created out of two manipulations of the variables social pressure and involvement. The manipulation of these variables results in four different articles as shown below.

Table 1

Conditions

	Involvement	
Social Pressure	High	Low
High	II Europe General knowledge requested	III Asia General knowledge requested
Low	I Europe No general knowledge requested	IV Asia No general knowledge requested

Measures

Three different sets of items were assessed in the study. The first set of questions referred to information seeking behavior, one of the two constructs used to measure the independent variable information seeking. Respondents were asked to choose between four different website links. Two links were relevant to the article before. These links indicated information seeking behavior. The other two links were not relevant, and thus did not indicate information seeking behavior. These links were, however, interesting links about topics students were supposed to find interesting. Successively, students were asked to fill in a questionnaire. This questionnaire measured responses on a five point scale , with one indicating that the respondent highly disagreed with a given thought or statement and five indicating that that respondents highly agreed with a given thought or statement. The questionnaire measured level of social pressure, level of involvement and adherence probability. These questions were already used and validated in another study about

information seeking behavior (Huurne, ter, 2008). Also, respondents were asked about the credibility and the understandability of both articles. Finally, they were asked to estimate their knowledge about the article about the previous read article about avian influenza.

Social pressure. Social pressure was measured with a reliable four item scale (α=0,699). Respondents were asked if they thought that people in their environment saw it as important that they were informed about risks as H5N1, if they thought it was expected from them to know something about this topic, if they were commonly inclined to what others expected from them and if they found the meaning of others important for themselves. The first set of items in this scale was used to see whether or not there was a difference between the high and low social pressure conditions. The last two items, on the other hand, were used to asses if respondents were influenced by social pressure.

Involvement. Involvement was measured using a reliable four item scale (α=0,812). Respondents were asked how committed they felt with the topic, how important they find it to have information about the described risk, and to what extent they were interested in the consequences of H5N1. Furthermore, they were asked to estimate how severe the consequences of a pandemic as described would be for them personally. These questions served to see whether the difference in involvement between the respondents given the Europe and Asia condition, did occur as expected.

Adherence probability. Adherence probability was measured using a two-item scale (r=0.717, α=0.835). Respondents were asked how likely they were to take precautions if the risk occurred and whether or not they would adhere to given instructions.

Information seeking intention. Information seeking intention was also measured with a reliable two item scale (r=0.625, α=0.77). Participants were asked to judge the probability that they would search information about the risk and to report the likelihood of them keeping informed about similar events.

Credibility. Credibility was assessed using a two item scale asking participants to separately judge the credibility of both articles.

Understandability. Understandability was assessed by asking participants how understandable they judged each article.

Perceived Knowledge. Perceived Knowledge was assessed with one item. Participants were asked to rate their perceived level of knowledge of the article.

The last question was used to assess how much knowledge participants in the different conditions received from the WHO article. Therefore, participants received 15 true/false

questions about the article. Two different versions of the quiz were established to fit the participants' knowledge derived in one of the two versions of the article.

Results

Descriptive statistics. There were no significant differences between the four conditions in gender (F(3,96)=1.78,p=0.16), university (F(3,96)=2.13,p=0.1), study (F(3,96)=1.85,p=0.14), nationality (F(3,96)=1.16,p=0.33), province (F(3,96)=0.33,p=0.8) or age (F(3,96)=1.4,p=0.24).

Table 1

Pearson correlations obtained in the experiment

	1.	2.	3.	4.	5.	6.	7.	8.
1. Condition	1							
2. Quizscore	-0,109	1						
3.Social Pressure	-0,061	,510(**)	1					
4. Involvement	-0,191	,308(**)	,348(**)	1				
5. Adherence	,329(**)	,490(**)	,448(**)	,516(**)	1			
6. Information Seeking Intention	0,008	,457(**)	,348(**)	,550(**)	,651(**)	1		
7. Understandability	0,061	,366(**)	0,141	,261(**)	0,178	,335(**)	1	
8. Credibility	0,028	0,186	,302(**)	,211(*)	,363(**)	0,178	,356(**)	1
9. Information Seeking Behavior	-0,045	-0,033	-0,018	-,207(*)	-0,153	-0,091	-0,117	0,094

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Tabel 2

Mean scores and standard deviations

	I	II	III	IV	Total
Quizscore	M=9.76	M=10,8	M=9,65	M=9,32	M=9,89
	SD=2,83	SD=2,84	SD=2,19	SD=2,9	SD=2,73
Social Pressure	M=2,96	M=3,05	M=3,16	M=2,79	M=2,99
	SD=0,75	SD=0,74	SD=0,65	SD=0,74	SD=0,72
Involvement	M=3,25	M=3,4	M=2,83	M=2,96	M=3,11
	SD=0,75	SD=0,73	SD=0,76	SD=0,8	SD=0,78
Adherence	M=3,36	M=3,24	M=2,78	M=2,78	M=2,99
	SD=1,08	SD=1,0	SD=0,74	SD=0,74	SD=0,97
Information	M=3,24	M=3,3	M=3,02	M=3,3	M=3,22
Seeking Intention	SD=0,96	SD=0,98	SD=0,83	SD=0,85	SD=0,9
Understandability	M=3,82	M=3,92	M=3,76	M=3,98	M=3,87
	SD=0,61	SD=0,51	SD=0,64	SD=0,73	SD=0,62
Credibility	M=3,8	M=3,7	M=3,76	M=3,98	M=3,87
	SD=0,76	SD=0,54	SD=0,64	SD=0,73	SD=0,62

Effects of manipulation

The four different conditions were supposed to create different levels of social pressure and involvement. To be able to rule out the possibility that differences in the understandability and credibility of the articles bias the results, conditions were expected not to differ with regard to these two factors. Information seeking, by contrast, was expected to be significantly higher in the groups high on one or both factors.

Social Pressure. Social Pressure was expected to be higher in the second and third condition. Contrary to the expectations, the results show no significant difference between the four conditions ($F(3,96)=1.26, p=0.29$). No interaction effect was found. No statistic significance was found between genders in the different groups ($F(1,99)=1.926, p=0.17$).

Involvement. Involvement was expected to be higher in the first two conditions. The effect of involvement was found with a tendency to significance with two sided testing. However, one should consider that in an appropriate one sided test, the expected effect would be significant on a 0,05 level. Therefore we can conclude that the conditions that were supposed to create higher levels involvement (M=3,25 and M=3,4) actually lead to

higher involvement than conditions that were supposed to have low involvement (M=2,93 and M=2,65).

Credibility. Both articles were perceived as credible (M=3,7 and M=3,86). No differences between the groups were found. (F(3,96)=0.37,p=0.78 and F(3,95)=0.21,p=0.9).

Understandability. Both articles were perceived as very understandable (M=4.15 and M=3.6). No differences between the groups were found. (F(3,95)= 2.11,p=0.11) and (F(3,96)=0.33,p=0.80).

Information seeking. The four different conditions were supposed to create different levels of information seeking. Both Information Seeking Behavior and Information Seeking Intention were supposed to be higher in the conditions that were high on social pressure and/or involvement. The highest level of both factors was expected in condition three because both factors were high in this condition.

In the study, however, no significant differences were found in neither Information Seeking Behavior (F(3,96)=1.32,p=0.27) nor Information Seeking Intention (F(3,96)=0.39,p=0.76). Therefore it can be assumed that the different conditions had no significant effect on Information Seeking in the study.

Testing of hypotheses

Three different hypotheses were tested in the study.

Hypothesis 1: According to Hypothesis 1, high social pressure will lead to higher levels of adherence. Because of this reason, participants in condition two and three should be motivated more to seek relevant information than participants in group one and four.

Although the groups were significantly different (F(3,95)=4,1,p=0,09), Hypothesis 1 can not be supported, because no main effect existed when both groups high on social pressure (2 and 3) were compared with the control groups (F(1,97)=0,02,p=0.88). No interaction effects were found. Based on these results, it can not be concluded that Social Pressure influences Individuals to seek risk relevant information in this study.

Hypothesis 2 states that a message high on involvement will create better adherence than a message low on involvement. Therefore, individuals in group one and two were expected to show a higher degree of adherence than participants in the other two groups.

In concordance with these expectations, a tendency to significance was found with two sided testing ($F(3,95)=4.098, p=0.09$). When a one-sided test is used, group one and two differ significantly from groups three and four on a 0,05 level. Therefore it can be concluded that adherence probability is higher in condition one ($M=3.36$) and two (3.24) than in group three ($M=2.78$) and four ($M=2.58$). According to these results, hypothesis 2 can be supported.

Hypothesis 3 assumes that high levels of involvement will lead to a high level of remembrance. Therefore, participants in group one and two were expected to remember more of the presented article and therefore perform better in the quiz than the other two groups. Contrary to this findings, however, no significant difference was found between the different conditions ($F(3,96)=1.51, p=0.22$). Therefore we can not conclude that involvement leads to better remembrance and can not support hypothesis three.

Perceived Knowledge. Perceived Knowledge was medium ($M=2.88$). No differences between the groups were found ($F(3,96)=1.12, p=0.35$. Therefore, we can conclude that the conditions did not differ in their perceived amount of knowledge. This is in concordance with the fact that no differences were found in quiz scores neither. Scores on the quiz did not differ between the conditions ($F(3,96)=1.52, p=0,22$. The mean score (M) was 9,84.

Discussion

The main purpose of this experiment was to study the influence of the factors Social Pressure and Involvement on Adherence Probability and the influence of the factor Involvement on Remembrance. To study the effect of these factors, different levels of both factors had to be created. A high level of social pressure was to be created through informing participants that general knowledge could be required in an interview for a job. In the low condition, by contrast, participants were given a tip concerning female behaviour in an interview for a job. Although the source was judged very understandable and credible throughout all conditions, no significant effect was found in creating social pressure. Different explanations can be given why the manipulation failed to create a significant difference in social pressure. The most probable one is that the manipulation was not strong enough. First of all, it is possible that the manipulation was not apparent enough for participants to recognize due to its position and/or size. Second, it could also be possible that the subject did not matter to participants sufficiently. Due to the fact that all participants in the experiment were students, it can be assumed that this was the case

because they either already possessed sufficient knowledge or did not perceive the subject as interesting for them at the moment. Due to these possibilities, it would have been useful to add items to assess participant's state of knowledge about job interviews as well as their current perception of its importance. The possibility that the tip about female behaviour in fact was not perceived as neutral by females can be ruled out due to the fact that no differences in social pressure existed between the genders within both low conditions.

Another, more general explanation could be that 72 per cent of participants were Psychology students and thus can be expected to have some prior experience in the construction of experiments. Although the credibility of the application tips was perceived very high, it is possible that respondents were able to identify the link between the tip that knowledge about H5N1 could be required in an interview for a job and the information provided about this topic in the second article. Possibly, this could have led to a lesser degree of experienced social pressure due to the fact they considered the information presented rather as a part of the experiment than as actual tips for an application. For that reason, it would have been useful to ask participants whether or not they had an idea about the purpose of the experiment at the end of the survey and to take this into consideration with regard to both manipulations.

To create high levels of involvement, participants were presented an article that informed them about the worldwide danger of *Influenza A* viruses and the H5N1 virus. In addition, they were shown a table of victims that came from the same province and were approximately the same age as the respondents. When a two-sided test was used, involvement had a tendency to significance to be higher in the high involvement conditions. When a one-sided test was used, however, involvement was significantly higher in the high involvement conditions (on a 0,05 level). An interesting finding was that both groups in the low involvement condition scored higher on involvement than expected: although it can not be assumed that one or more participants had a direct relation to the Asian continent, the majority in both groups stated to feel somewhat involved. With regard to Johnson's (2005) finding that involvement represents the personal importance, interest and significance of the risk topic to the individual it can be assumed that the low involvement conditions had a considerable influence on participant's perception of the risk. The most probable explanation for this outcome is that participants in the low involvement condition still felt threatened by the described situation. This could be due to participant's knowledge of prior cases of H5N1 in Europe or the understanding that the described virus hardly could be constricted to the Asian continent. Other possibilities could be that

participants felt threatened by indirect consequences of a pandemic on the Asian continent or that the high level of involvement resulted from compassion with the at-risk population. To make a reliable estimate of how and to what extend the two low involvement conditions did create involvement, it would have been helpful to add items that measure to what degree participants perceived a pandemic on the Asian continent to hold direct and indirect consequences for them. Other useful questions would have been to ask participants if they believed that a pandemic could actually be contained on one continent and in how far they felt compassionate with the at–risk-population. Contrary to the expectations, no higher degrees of information seeking behaviour or information seeking intention were created to in the two high involvement conditions. With regard to the fact that involvement was relatively high throughout the conditions, however, the results still are supported by the Elaboration Likelihood Model (Petty and Cacioppo, 1986). According to the model, individuals will elaborate information extensively via the so-called central route when involvement is high. Therefore we can conclude that this was the case in all four conditions.

As stated in the first hypothesis, messages high on social pressure were expected to create better adherence than messages low on social pressure. In the experiment, however, no significant difference between control group and experimental group was found. Therefore, the first hypothesis can not be supported. The most probable explanation for this outcome is that no significant differences in social pressure existed between the conditions. Therefore, no valid assumptions can be made about the influence of social pressure on adherence.

The second hypothesis stated that a message high on involvement will create better adherence than a message low on involvement. Because of the fact that adherence was significantly higher in the high involvement conditions than in the low involvement conditions, hypothesis two can be supported. Since involvement only was significant on a one-sided test, the same test was used to measure differences in adherence probability.

According to the third hypothesis, a message high on involvement will create a higher degree of remembrance than a message low on involvement. This hypothesis was not supported by the data. This poses a contrast to the work of Petty and Cacioppo (1981) and Eagly and Chaiken (1993). To explain these outcomes, a number of potential explanations need to be taken into account. First of all, it is important to consider the high degree of involvement in both groups. According to the authors named above, issues that are judged as personally relevant or important are likely to generate more systematic processing and

therefore can be expected to lead to better processing. Due to the fact that participants in all four conditions were found to be involved to a considerable degree, it is possible that all groups were sufficiently involved to process the given information systematically. Another possible explanation for these outcomes could be the limited discriminative validity of the test. It is possible that a longer and/or better constructed test could have measured the differences between the high and low involvement conditions more accurately. The finding that no between-group differences were found with regard to perceived knowledge indicates consistency between perceived and actual knowledge.

Conclusion

Based on the findings as well as on the shortcomings of this experiment, several propositions can be made regarding both the implementation and the focus of further research. With regard to our own inability to create social pressure, experimenters are advised to make sure that the manipulations they use are sufficient in strength, size and visibility. In addition, it should be assured that the subject matches participant's interest and that participant's possible experience with test construction does not interfere with the presented information. If the use of a pre-test is not possible due to the limited extend of the study, experimenters at least should add items to control for these factors. In case information about a large-scaled and potentially multidimensional risk is used for manipulation, it would also be beneficial to try to take into account all direct and indirect stakes participants have in the described situation to avoid unexpected effects. An interesting implication for research would be to identify different dimensions of involvement and to study their distinctive effects on adherence probability. For example, it would be interesting to study the different influence of direct and indirect involvement on adherence probability. Although hypothesis two could not be supported and no valid assumptions were made about the influence of social pressure on adherence probability, it does not mean that no significant influence can be found in future. Therefore, we encourage future researchers into this topic. With regard to the Elaboration Likelihood Model (Petty and Cacioppo, 1986) it would also be of interest to study if a kind of involvement threshold exists or if elaboration can increase further after the threshold to central processing is reached. Possibly, the effect of different dimensions of involvement on information processing could also be studied with regard to the model.

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Appendix 1: Low involvement

SOLLICITEREN EN DE EERSTE INDRUK: VIJF TIPS

De eerste indruk is ontzettend belangrijk. Je hebt maar één kans om een eerste indruk te maken. Doe het dus goed! Nobiles geeft je onderstaande tips:

1. De eerste indruk maak je met je sollicitatiebrief. Natuurlijk zorg je ervoor dat deze brief in intelligent en foutloos Nederlands is opgesteld.

2. Mensen kennen aan aantrekkelijke mensen allerlei positieve eigenschappen toe. Minder aantrekkelijke mensen moeten het – gechargeerd gesteld - doen met kwalificaties als lui, geniepig en dom. Het loont dus om er op je paasbest uit te zien. De uiterlijke aantrekkelijkheid speelt vooral een rol als kandidaat niet goed gekwalificeerd is. Zijn je kwalificaties goed tot uitstekend, dan speelt het uiterlijk geen rol.

3. Lichaamstaal is belangrijk. Het recht in de ogen kijken van gesprekspartners wordt gezien als een indicator van een sterk karakter. Veel gebaren, vrijuit spreken en een positieve gezichtsuitdrukking worden ook positief beoordeeld.

4. Pieker niet over de indruk die je maakt, maar richt je op de ander. Toon interesse, stel vragen. Dat wordt niet alleen gewaardeerd, je doet zo ook informatie op die je helpt beslissen of dit bedrijf bij je past.

5. Solliciteer je als vrouw voor een leidinggevende positie, dan word je geacht eigenschappen te laten zien die strijdig zijn met de eigenschappen die traditioneel aan vrouwen worden toebedacht. Aantrekkelijke vrouwen worden namelijk niet geschikt gevonden voor leidinggevende functies. Kleed je dus niet te aantrekkelijk en liefst zakelijk wanneer je solliciteert voor een management traineeship.

Appendix 2: High involvement

SOLLICITEREN EN DE EERSTE INDRUK: VIJF TIPS

De eerste indruk is ontzettend belangrijk. Je hebt maar één kans om een eerste indruk te maken. Doe het dus goed! Nobiles geeft je onderstaande tips:

1. De eerste indruk maak je met je sollicitatiebrief. Natuurlijk zorg je ervoor dat deze brief in intelligent en foutloos Nederlands is opgesteld.

2. Mensen kennen aan aantrekkelijke mensen allerlei positieve eigenschappen toe. Minder aantrekkelijke mensen moeten het – gechargeerd gesteld - doen met kwalificaties als lui, geniepig en dom. Het loont dus om er op je paasbest uit te zien. De uiterlijke aantrekkelijkheid speelt vooral een rol als kandidaat niet goed gekwalificeerd is. Zijn je kwalificaties goed tot uitstekend, dan speelt het uiterlijk geen rol.

3. Lichaamstaal is belangrijk. Het recht in de ogen kijken van gesprekspartners wordt gezien als een indicator van een sterk karakter. Veel gebaren, vrijuit spreken en een positieve gezichtsuitdrukking worden ook positief beoordeeld.

4. Pieker niet over de indruk die je maakt, maar richt je op de ander. Toon interesse, stel vragen. Dat wordt niet alleen gewaardeerd, je doet zo ook informatie op die je helpt beslissen of dit bedrijf bij je past.

5. Wees op de hoogte van actuele gebeurtenissen. Niet alleen interesse in de bedrijf, maar ook algemene interesse wordt op prijs gesteld. Vragen als "wie is de buitenminister van de VS" of "Waarom is die influenza A virus zo gevaarlijk" worden vaak gebruikt om algemene kennis te meten. Geef geen persoonlijke mening, maar alleen feiten.

Appendix 3:Low involvement

According to many experts, pandemic influenza (wereldwijde griep epidemie) today is the most significant global public health emergency caused by a naturally occurring pathogen.
Lacking a proof-reading mechanism, Influenza A viruses undergo constant stepwise changes in their genetic make-up. This so called antigenic drift enables the swapping of co infection with human and avian (pluimvee) influenza viruses. As this occurs, it will create a new "hybrid" virus that will be entirely or largely unfamiliar to the human immune system. If this new "hybrid" virus contains the right mix of genes, it can cause severe disease with an easy sustainable human-to-human transaction. This will ignite a pandemic. Pandemics are rare but recurring events, associated with great morbidity, significant mortality, and considerable social and economic disruption. Given the vulnerability of the population and the highly contagious nature of influenza viruses, all parts of the world can become rapidly infected.

Of all viruses in the vast avian influenza pool, H5N1 is of particular concern for human health for two reasons. First, H5N1, though strictly an avian pathogen, has a documented ability to pass directly from birds to humans. Second, once in humans, H5N1 causes severe disease with very high mortality. These two features combine to make H5N1 of concern for a third and greater reason: its potential to ignite an especially severe pandemic.
During 2004, large parts of Europe experienced unprecedented outbreaks of highly pathogenic avian influenza, caused by the H5N1 virus, in poultry (pluimvee). The confirmation of human cases gave the outbreaks a new dimension. They were now a health threat to populations in affected countries and, possibly, throughout the world. All prerequisites for the start of a pandemic had been met save one, namely the onset of efficient human-to-human transmission. Should the virus improve its transmissibility, everyone in the world would be vulnerable to infection by a

a pathogen - passed along by a cough or a sneeze - entirely foreign to the human immune system.

[...] The massive control efforts had an impact, and the outbreaks declined sharply during March except in Thailand, where sporadic outbreaks continued to be reported through April. Predictably, new human cases dwindled then ceased, with the last occurring in mid-March in Viet Nam. From January through March, Viet Nam and Thailand together reported 35 cases, of which 24 were fatal.

Table 1. Human cases, Viet Nam

First phase

No.	Sex	Age	Province	Onset	Outcome
1	female	25 years	Ha Nam	25.12.03	died 30.12.03
2	male	16 years	Ha Tay	29.12.03	died 11.01.04
3	female	21 years	Ha Tay	1.01.04	died 9.01.04
4	male	18 years	Ha Nam	23.12.03	died 8.01.04
5	female	8 years	Ha Nam	11.01.04	died 17.01.04
6	female	24 years	Ha Nam	13.01.04	recovered
7	male	13 years	Ho Chi Minh City	14.01.04	died 22.01.04
8	female	23 years	Thai Binh	10.01.04	died 23.01.04
9	female	30 years	Ha Nam	10.01.04	died 23.01.04
10	male	19 years	Ha Tay	11.01.04	recovered
11	female	20 years	Bac Giang	9.01.04	recovered
12	male	18 years	Ha Nam	25.01.04	died 2.02.04
13	female	16 years	Lam Dong	21.01.04	died 3.02.04
14	female	17 years	Ha Tay	12.01.04	died 27.01.04
15	female	27 years	Ha Tay	24.01.04	died 3.02.04
16	male	24 years	Thai Binh	29.01.04	died 3.02.04
17	male	23 years	Ha Nam	28.01.04	recovered
18	male	28 years	Ha Tay	29.01.04	died 9.02.04
19	male	22 years	Ha Nam	31.01.04	recovered
20	male	15 years	Tanh Hoa	9.02.04	recovered
21	male	4 years	Thai Binh	5.02.04	died 18.02.04
22	female	16 months	Ha Nam	14.02.04	recovered
23	male	21 years	Dong Nai	10.03.04	died 15.03.04

The H5N1 virus has given us not only a clear warning but time to enhance preparedness. During 2004, concern about the threat of a pandemic set in motion a number of activities, coordinated by WHO, that are leaving the world better prepared for the next pandemic.
[…] Further it is crucially important, that individuals comply with a wide range of medical(e.g. vaccinations) and non-medical interventions (personal hygiene, wearing masks and quarantine) that can potentially reduce opportunities for transmission at the start of a pandemic and slow international spread.

Appendix 4: High involvement

According to many experts, pandemic influenza (wereldwijde griep epidemie) today is the most significant global public health emergency caused by a naturally occurring pathogen.
Lacking a proof-reading mechanism, Influenza A viruses undergo constant stepwise changes in their genetic make-up. This so called antigenic drift enables the swapping of co infection with human and avian (pluimvee) influenza viruses. As this occurs, it will create a new "hybrid" virus that will be entirely or largely unfamiliar to the human immune system. If this new "hybrid" virus contains the right mix of genes, it can cause severe disease with an easy sustainable human-to-human transaction. This will ignite a pandemic. Pandemics are rare but recurring events, associated with great morbidity, significant mortality, and considerable social and economic disruption. Given the vulnerability of the population and the highly contagious nature of influenza viruses, all parts of the world can become rapidly infected.

Of all viruses in the vast avian influenza pool, H5N1 is of particular concern for human health for two reasons. First, H5N1, though strictly an avian pathogen, has a documented ability to pass directly from birds to humans. Second, once in humans, H5N1 causes severe disease with very high mortality. These two features combine to make H5N1 of concern for a third and greater reason: its potential to ignite an especially severe pandemic.
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[...] The massive control efforts had an impact, and the outbreaks declined sharply during March except in France, where sporadic outbreaks continued to be reported through April. Predictably, new human cases dwindled then ceased, with the last occurring in mid-March in the Netherlands. From January through March, France and the Netherlands together reported 35 cases, of which 24 were fatal.

Table 1. Human cases, the Netherlands

First phase

No.	Sex	Age	Province	Onset	Outcome
1	female	25 years	Overijssel	25.12.03	died 30.12.03
2	male	16 years	Gelderland	29.12.03	died 11.01.04
3	female	21 years	Gelderland	1.01.04	died 9.01.04
4	male	18 years	Overijssel	23.12.03	died 8.01.04
5	female	8 years	Overijssel	11.01.04	died 17.01.04
6	female	24 years	Overijssel	13.01.04	recovered
7	male	13 years	Zeeland	14.01.04	died 22.01.04
8	female	23 years	Flevoland	10.01.04	died 23.01.04
9	female	30 years	Overijssel	10.01.04	died 23.01.04
10	male	19 years	Gelderland	11.01.04	recovered
11	female	20 years	Noord-Brabant	9.01.04	recovered
12	male	18 years	Overijssel	25.01.04	died 2.02.04
13	female	16 years	Groningen	21.01.04	died 3.02.04
14	female	17 years	Gelderland	12.01.04	died 27.01.04
15	female	27 years	Gelderland	24.01.04	died 3.02.04
16	male	24 years	Flevoland	29.01.04	died 3.02.04
17	male	23 years	Overijssel	28.01.04	recovered
18	male	28 years	Gelderland	29.01.04	died 9.02.04
19	male	22 years	Overijssel	31.01.04	recovered
20	male	15 years	Utrecht	9.02.04	recovered
21	male	4 years	Flevoland	5.02.04	died 18.02.04
22	female	16 months	Overijssel	14.02.04	recovered
23	male	21 years	Drenthe	10.03.04	died 15.03.04

The H5N1 virus has given us not only a clear warning but time to enhance preparedness. During 2004, concern about the threat of a pandemic set in motion a number of activities, coordinated by WHO, that are leaving the world better prepared for the next pandemic.
[…] Further it is crucially important, that individuals comply with a wide range of medical (e.g. vaccinations) and non-medical interventions (personal hygiene, wearing masks and quarantine) that can potentially reduce opportunities for transmission at the start of a pandemic and slow international spread.

Appendix 5: Demographics

1. Wat is uw geslacht?

- Man
- Vrouw

2. In welke instelling zit u?

- Utwente
- Saxion Hogeschool

andere, namelijk:

3. Welke opleiding volgt u?

- PSY
- TCW
- EDMM

andere, namelijk:

4. Wat is uw nationaliteit?

- Nederlands
- Duits

andere, namelijk:

5. In welke provincie woont u?

- Overijssel

andere, namelijk:

6. Wat is uw leeftijd?

Appendix 6: link choice

1. Zou u nu de keuze willen maken tussen 1 van de 4 sites hieronder? Dit kunt u doen door erop te klikken!

- http://www.cdc.gov/flu/protect/antiviral/
- http://www.who.int/csr/disease/influenza
- www.kiesjestudie.nl
- www.rtl.nl/reality/beautyendenerd/

Appendix 7: Questionnaire

1. U hebt net een artikel over de gevaren van H5N1 gelezen. Geef nu aan, in hoeverre u eens bent met volgende stellingen:

	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
Ik voel me betrokken bij dit risico	☐ Helemaal niet	☐ Nauwelijks	☐ Enigszins	☐ Nogal	☐ Heel erg
Ik vind het belangrijk informatie te hebben over het desbetreffende risico	Helemaal niet ☐	Nauwelijks ☐	Enigszins ☐	Nogal ☐	Heel erg ☐
Ik ben geïnteresseerd in de gevolgen van H5N1	Helemaal niet	☐ Nauwelijks	☐ Enigszins	☐ Nogal	☐ Heel erg

2. Hoe ernstig zullen de gevolgen van een pandemie zoals beschreven voor u zijn?

	Helemaal niet ernstig	Niet echt ernstig	Enigszins ernstig	Nogal ernstig	Zeer ernstig
Als er een Pandemie zoals in het artikel uitbreekt, zijn de gevolgen voor mij	☐ Helemaal niet ernstig	☐ Niet echt ernstig	☐ Enigszins ernstig	☐ Nogal ernstig	☐ Zeer ernstig

3. Hoe denkt u, dat mensen die belangrijk voor u zijn met informatie over pandemieën omgaan?In hoeverre bent u eens met de volgende stellingen?

	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
Mensen in mijn omgeving vinden dat ik op de hoogte moet zijn van risico's als H5N1.	☐ Helemaal niet	☐ Nauwelijks	☐ Enigszins	☐ Nogal	☐ Heel erg
Er word van mij verwacht dat ik wat weet over dit onderwerp.	☐ Helemaal niet	☐ Nauwelijks	☐ Enigszins	☐ Nogal	☐ Heel erg
In het algemeen ben ik geneigd om te doen wat andere van mij verwachten.	☐ Helemaal niet	☐ Nauwelijks	☐ Enigszins	☐ Nogal	☐ Heel erg
De mening van mensen om mij heen is belangrijk voor mij.	☐ Helemaal niet	☐ Nauwelijks	☐ Enigszins	☐ Nogal	☐ Heel erg

4. Wanneer ik lees over een pandemie als beschreven in het artikel, dan

	Zeer klein	Nogal klein	Niet klein/niet groot	Nogal groot	Zeer groot
Is de kans dat ik voorzorgmaatregelen neem	☐ Zeer klein	☐ Nogal klein	☐ Niet klein/niet groot	☐ Nogal groot	☐ Zeer groot
Is de kans dat ik gegeven instructies opvolg	Zeer klein ☐	Nogal klein ☐	Niet klein/niet groot ☐	Nogal groot ☐	Zeer groot ☐
Is de kans dat ik informatie zoek over	☐ Zeer klein	☐ Nogal klein	☐ Niet	☐ Nogal	☐ Zeer groot

	Zeer klein	Nogal klein	Niet klein/niet groot	Nogal groot	Zeer groot
dit onderwerp			klein/niet groot	groot	
Is de kans dat ik informatie over dergelijke risico's in de gaten houd	Zeer klein	Nogal klein	Niet klein/niet groot	Nogal groot	Zeer groot

5. Hoe BEGRIJPELIJK vond u

	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
de sollicitatie tips	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
het WHO artikel	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg

6. Hoe GELOOFWAARDIG vond u

	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
de sollicitatie tips	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
het WHO artikel	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg

7. Tenslotte zouden wij graag van U willen weten hoeveel KENNIS u denkt te hebben over het gelezen artikel.

	Zeer weinig	Weinig	Enigszins	Veel	Zeer veel
De hoeveelheid kennis die ik heb over het gelezen artikel is	Zeer weinig	Weinig	Enigszins	Veel	Zeer veel

Appendix 8: Quiz. (high involvement)

1. Pandemic influenza today is the most significant global public health emergency caused by a naturally occurring pathogen.
2. There were 38 cases, of which 25 were fatal.
3. The most outbreaks were in Overijssel and Gelderland.
4. H5N1 has a strong proof-reading mechanism.
5. H5N1 is not yet transmissible from human to human.
6. H5N1 is not a strictly avian pathogen.
7. Antigenic drift is de transaction from avian pathogens on humans.
8. All prerequisites for the start of a pandemic have been met in France and the Netherlands.
9. Pandemics are associated with considerable social and economic disruption.
10. All influenza viruses are "hybrids".
11. Vaccination, wearing masks and personal Hygiene can potentially reduce opportunities for transmission. 12. Wearing masks and providing masks are both medical interventions.
13. The most victims were in Thailand.
14. Human to human transaction is the reason for genetic drift.
15. The WHO coordinates the preparation for the next pandemic.

Appendix 9: Quiz (low involvement)

1. Pandemic influenza today is the most significant global public health emergency caused by a naturally occurring pathogen.

2. There were 38 cases, of which 25 were fatal.
3. The most outbreaks were in Ha Nam and Ha Tay.
4. H5N1 has a strong proof-reading mechanism.
5. H5N1 is not yet transmissible from human to human.
6. H5N1 is not a strictly avian pathogen.
7. Antigenic drift is de transaction from avian pathogens on humans.
8. All prerequisites for the start of a pandemic have been met in Thailand and Viet Nam.
9. Pandemics are associated with considerable social and economic disruption.
10. All influenza viruses are “hybrids”.
11. Vaccination, wearing masks and personal Hygiene can potentially reduce opportunities for transmission. 12. Wearing masks and providing masks are both medical interventions.
13. The most victims were in Thailand.
14. Human to human transaction is the reason for genetic drift.
15. The WHO coordinates the preparation for the next pandemic.

Universiteit Twente
de ondernemende universitei

Bachelorthese

Social Pressure and Involvement –
to what Extend do these Factors influence Adherence Probability?

Enschede, Universiteit Twente – Faculteit Gedragswetenschappen

Abstract

In this experimental study, a 2x2 between subject design was used to create different levels of the factors social pressure and involvement to study its' effect on information seeking in general and on adherence probability in specific. Furthermore, the effect of involvement on remembrance was studied.

Due to the fact that the survey failed to create different levels of social pressure, no assumptions can be made with regard to this factor. Involvement, however, was found to have a significant effect on adherence probability. No effect on remembrance was found. Information seeking behaviour did not differ significantly differ between the groups, but was found to be high in all conditions. This is probably caused by the high levels of involvement throughout all conditions.

Key words: risk information; social pressure; involvement; adherence probability; remebrance

Introduction

In the last years, people's view of risks has changed dramatically. Individuals became more aware of and concerned about the risks they experience in their daily lives. In modern, highly industrialized countries, risk became a topic of nearly universal importance (Hampel, 2006). Nowadays, people are confronted with new and large-scaled risks that either are by-products of modern technology as pesticides or nuclear radiation or are influenced and amplified by them. As a consequence of international travel, dangerous pathogens as SARS and H5N1 are now able to cross geographical boundaries that limited their spread in the past. And due to satellite communications and the widespread accessibility of the internet, people all over the world can learn about any given risk within hours. This leads to a constant feeling of anxiety in society (Ropeik, 2004). To reduce feelings of anxiety, effective mass media campaigns are crucially important. In earlier days, communicating risk to the public used to be driven by expert conceptualisations of public information needs (Griffin, Dunwoody, & Neuwirth, 1999) and followed the assumption that most people do not posses sufficient knowledge of science and technology to be capable of judging risks and benefits (Gregory and Miller, 1998). Following this so-called "top-down" approach, risk communication simply used to stress possible threats and recommended behaviours to reduce these threats while the role of the receiver was neglected (Fessenden-Raden, Fitchen,& Heath, 1987). In more recent years, a different view of risk communication evolved: the "bottom up" approach. This approach tends to be more receiver-oriented and assumes that individuals will actively search information if it is relevant and useful to them in some way (Sjöberg, 2002). Although this approach does not propose that "top down" messages are completely ineffective, it states that risk communication is bound to fail if researchers and practitioners do not understand the interaction between message characteristics and audiences´ information processing characteristics (Griffin et al, 1999). Therefore, it is important to understand the ways various audiences and audience segments seek and process the risk information they encounter in the media and other communication channels (Griffin et al, 1999).

The aim of this experimental study was to find out to what extend differences in message characteristics influence individual adherence probability and remembrance of the message. Therefore, a survey with four different messages was created to evoke different levels of the factors social pressure and involvement to study its' effect on adherence probability and remembrance. In the last 25 years, a number of general models have been

proposed to explain information seeking behaviour and interacting variables. But rather than describing the same set of activities, these models rather represent different aspects of the same general outcome. Therefore, the frameworks are complementary, rather than competing (Wilson, 1999). In 1981, Wilson proposed that the information need is not a primary one but a secondary need. It arises out of needs from environmental, social and person-related variables. He also stated that the same context that leads to information seeking behaviour also gives ground to the rise of barriers that impede the search for information. In contrast, the sense making theory (Dervin, 1999) focuses on an information gap between a situation in time and a planned outcome and a bridge as mean to close the gap. The gap is both a barrier to sense making and a prompt to action, for example to undertake information seeking.

In 2006, Godbold combined Wilson's and Dervin's frameworks in the so-called "Extended Model of Information Seeking Behaviour". In this framework, a person in a certain situation stands at the information gap, contemplating the gap and the need for sense making. Based on the decision derived from his or her conclusion, the person then undertakes some course of action to make sense by employing one or more of a full range of options for handling information. Therefore, the existence of an information gap is not only influenced by information seeking behaviour, but also by factors as the importance of satisfying the need (e.g. perceived involvement and personal relevance) and the availability of information sources.

But because these theories explain information behaviour only in general terms and do not search for separate entities that affect this kind of behaviour, no explicit claims can be made. In 1999, Griffin et al proposed a more specific model of risk information seeking and processing (RISP). Based on parts of the Heuristic-Systematic Model (Eagly and Chaiken, 1993) the Theory of Planned Behaviour (Ajzen, 1991) and mass media research, RISP proposed a variety of variables that might predispose an individual to seek and process information in various risk settings (Griffin et al, 1999). The model also states that different individuals have different levels of amount of information they believe they need in order to feel confident to judge a given risk. According to the model, information seeking and processing is directly affected by 3 factors: Information Sufficiency, Relevant Channel Beliefs and Perceived Information Gathering Capacity. In addition, the indirect factors Affective Responses, Informational Subjective Norms, Perceived Hazard Characteristics and Individual Characteristics are also influential for information processing and seeking.

*Social Pressure.*According to Atkin (1972), the assumption that significant others (i.e. family and friends) are knowledgeable about an issue might stimulate the individual to seek information. Individuals faced with risky situations are inclined to base their decisions on which behaviour to pursue first by considering what other people do and possible reactions of family, friends, and others are seen as great influences of these decisions (Neuwirth and Frederick, 2004). An individual's perception that relevant others think that he or she should (or should not) perform a particular behaviour can be at least as important as predictor of behaviour as the person's own cognitions and attitudes about performing the behaviour (Ajzen and Fishbein, 1980; Fishbein and Ajzen, 1975).

RISP proposes, that informational subjective norms might affect information sufficiency and therefore indirectly predict to ones motivation to seek additional information or to reject information. According to the Theory of Planned Behaviour, in contrast, Normative Beliefs are supposed to directly affect a person's behavioural intentions (Ajzen, 2002). Therefore, we expect high levels of perceived social pressure to lead to higher levels of information seeking than low levels of information seeking behaviour in the experiment.

*Involvement.*Involvement represents the personal importance, interest and significance of the risk topic to the individual and therefore determines the extend to which an individual is willing to think about the topic (Johnson 2005). Research by Nathan, Heath and Douglas (1992) has shown that involvement is positively associated with the individual's willingness to gather information. When people are confronted with a threat or an uncertainty, they will evaluate whether their self interests are affected. This consequently will lead or lead not to problem recognition. Without recognition of the problem, individuals will not experience sufficient involvement and motivation to seek information (Heath, Liao, & Douglas, 1995). In the Elaboration Likelihood Model, Involvement is an important predictor of how information is processed. According to the model, the process of information can take two separate routes: When involvement is high, people elaborate information extensively via the central route and will relate to strong messages. In contrast, when involvement is low, individuals tend to use the so-called peripheral route. This means that they not extensively elaborate the information, but rather rely on environmental characteristics of the source such as perceived credibility or the quality of presentation (Petty and Cacioppo, 1986). With regard to the authors named above, we expect high levels of involvement to lead to higher levels of information seeking than lower levels of involvement. Given the influence of both independent variables apart,

we expect high levels of both factors combined to lead to the highest level of information seeking in this experiment. To judge the effectiveness of risk communication, it is necessary to find out how people respond to the campaign and whether or not they intent to adopt to the proposed risk related behaviours (Kahlor, 2003). In their study about adherence to screening recommendations in women with and without a family history of breast cancer, Rutten and Ianotti (2003) found, that issue involvement is significantly associated with adherence. Further is proposed, that both a reported family history of breast cancer and perceived vulnerability were positively associated with repeated mammography participation (Lerman, 1990). In Social Cognitive Theory, norms influence behavior anticipatory by the social consequences they provide. Behavior that fulfils social norms gains positive social reactions and thus provides further self incentives and contributes to adherence to healthful behavior. Behavior that violates social norms, in contrast, brings social censure and will guide to non-adherence (Bandura, 1986). Although these research outcomes are all based on health issues, we therefore expect both social pressure and involvement to influence on adherence.

*Hypothesis 1.*A message with high social pressure will create better adherence than a message with low social pressure.

*Hypothesis 2.*A message high on involvement will create better adherence than a message with low involvement.

Another important aspect within risk communication is how much an individual remembers in the different conditions. An issue judged to be personally relevant or important is more likely to generate more systematic processing than an issue considered less important and relevant (Petty and Cacioppo, 1981: Eagly and Chaiken, 1993). According to Eagly and Chaiken (1993), attitudes developed through more intense information processing are more stable and last longer than those developed through superficial processing. RISP proposes that the effort expended in gathering and especially processing information about preventive behaviours affect the stability of beliefs and attitudes about that behaviour derived through those activities (Griffin et al, 1999). We therefore expect that high levels of involvement will lead to higher levels of remembrance.

*Hypothesis 3.*A message high on involvement will create high levels of information remembrance.

Method

Materials

Two articles were used to manipulate the independent variables social pressure and involvement. After filling out several demographic questions and reading both articles, participants were asked to answer three different sets of items used to measure the dependent variables information seeking (a combination of the constructs information seeking behaviour and information seeking intention), adherence probability and remembrance.

Participants

One hundred students between 19 and 29 (mean age= 22.65) participated in the study. Eighty-eight percent were enrolled as students at Twente University, 11 per cent at Saxion Highschool and one participant at another university. There where significantly more Psychology students (72%) than TCW (19%), EDMM (3%) and other (6%) students. Although there were significantly more German than Dutch participants, the vast majority lived in the province Overijssel. No significant gender difference was found within or between the groups.

Design and Procedure

The study design was a 2 (social pressure: high vs low) x 2 (involvement: high vs low) between subject experiment. Conditions were tested one at a time. After a sufficient number of participants had completed the survey in one condition, it was into the next condition. All participants were sent the same link leading them to the experiment. After 25 respondents had completed the survey in the condition low on both factors, the first article was changed to create a condition high on social pressure and low on involvement. After another 25 respondents completed the survey, the second article was changed into the high condition as well to create a condition high on both factors. Thereafter, the condition was changed to low social pressure x high involvement after another 25 participants. After the last 25 participants completely had filled out this condition, the experiment was completed. The group manipulations will be discussed below.

At the beginning of the experiment, respondents were asked to answer some questions about their demographic background. Subsequently, they started the experiment. They first read 5 application tips provided by Nobilis.nl used to manipulate the independent variable social pressure and then a shortened version of the article: "Avian Influenza: assessing the pandemic threat" published by the WHO in 2004 which intended to manipulate the second independent variable involvement.

Social Pressure. Respondents were given 5 application tips provided by Nobilis.nl, a source expected to be reliable. The first 4 tips were general application tips concerning the letter of application, a neat appearance, the body language and the behavior during the conversation and were the same in both conditions. The 5th tip was different: The condition low on social pressure contained a tip for women applying for a leadership position, a stimulus which had no relation with the further experiment. In the high involvement condition, participants were informed that questions about recent events often were used to measure general interest and general knowledge in an interview for a job. The term Influenza A virus was explicitly mentioned to create a high level of social pressure. Therefore, we expected the tip about general interest to lead to high levels of social pressure and the tip about woman applying for a leadership position to lead to low levels of social pressure.

Involvement. Two different levels of involvement were created. Respondents received a shortened article published by the WHO (World Health Organization) which described the danger of influenza A viruses in general and of the H5N1 virus in particular. The first part of the article contained information about the nature of influenza A viruses, their possibility to change their genetic makeup and the severe consequences resulting from a mix up between human and avian viruses. Consequently, the formation, occurrence and particular danger of the H5N1 virus was stressed. To evoke high involvement, pandemic influenza was rated as a danger to the whole world in one of the two conditions. In the low involvement condition, by contrast, pandemic influenza was solely described as a danger to the Asian continent. Whereas the described cases of H5N1 were situated in Europe in the high involvement condition, they were supposed to have occurred in Asia. Furthermore, the article contained a table which showed sex, age, province and outcome (“died” or “recovered”) of the infected victims. In both conditions, most of the victims were approximately the same age as the respondents. While the majority of victims used to live

in the same province (Overijssel) as the respondents in the high involvement condition, they were claimed to have lived in provinces of Vietnam in the low involvement condition. The distribution of victims over different provinces was the same in both conditions.

In sum, 4 groups were created out of two manipulations of the variables social pressure and involvement. The manipulation of these variables results in four different articles as shown below.

Table 1

Conditions

	Involvement	
Social Pressure	High	Low
High	II Europe General knowledge requested	III Asia General knowledge requested
Low	I Europe No general knowledge requested	IV Asia No general knowledge requested

Measures

Three different sets of items were assessed in the study. The first set of questions referred to information seeking behavior, one of the two constructs used to measure the independent variable information seeking. Respondents were asked to choose between four different website links. Two links were relevant to the article before. These links indicated information seeking behavior. The other two links were not relevant, and thus did not indicate information seeking behavior. These links were, however, interesting links about topics students were supposed to find interesting. Successively, students were asked to fill in a questionnaire. This questionnaire measured responses on a five point scale , with one indicating that the respondent highly disagreed with a given thought or statement and five indicating that that respondents highly agreed with a given thought or statement. The questionnaire measured level of social pressure, level of involvement and adherence probability. These questions were already used and validated in another study about

information seeking behavior (Huurne, ter, 2008). Also, respondents were asked about the credibility and the understandability of both articles. Finally, they were asked to estimate their knowledge about the article about the previous read article about avian influenza.

Social pressure. Social pressure was measured with a reliable four item scale (α=0,699). Respondents were asked if they thought that people in their environment saw it as important that they were informed about risks as H5N1, if they thought it was expected from them to know something about this topic, if they were commonly inclined to what others expected from them and if they found the meaning of others important for themselves. The first set of items in this scale was used to see whether or not there was a difference between the high and low social pressure conditions. The last two items, on the other hand, were used to asses if respondents were influenced by social pressure.

Involvement. Involvement was measured using a reliable four item scale (α=0,812). Respondents were asked how committed they felt with the topic, how important they find it to have information about the described risk, and to what extent they were interested in the consequences of H5N1. Furthermore, they were asked to estimate how severe the consequences of a pandemic as described would be for them personally. These questions served to see whether the difference in involvement between the respondents given the Europe and Asia condition, did occur as expected.

Adherence probability. Adherence probability was measured using a two-item scale (r=0.717, α=0.835). Respondents were asked how likely they were to take precautions if the risk occurred and whether or not they would adhere to given instructions.

Information seeking intention. Information seeking intention was also measured with a reliable two item scale (r=0.625, α=0.77). Participants were asked to judge the probability that they would search information about the risk and to report the likelihood of them keeping informed about similar events.

Credibility. Credibility was assessed using a two item scale asking participants to separately judge the credibility of both articles.

Understandability. Understandability was assessed by asking participants how understandable they judged each article.

Perceived Knowledge. Perceived Knowledge was assessed with one item. Participants were asked to rate their perceived level of knowledge of the article.

The last question was used to assess how much knowledge participants in the different conditions received from the WHO article. Therefore, participants received 15 true/false

questions about the article. Two different versions of the quiz were established to fit the participants' knowledge derived in one of the two versions of the article.

Results

Descriptive statistics. There were no significant differences between the four conditions in gender (F(3,96)=1.78,p=0.16), university (F(3,96)=2.13,p=0.1), study (F(3,96)=1.85,p=0.14), nationality (F(3,96)=1.16,p=0.33), province (F(3,96)=0.33,p=0.8) or age (F(3,96)=1.4,p=0.24).

Table 1

Pearson correlations obtained in the experiment

	1.	2.	3.	4.	5.	6.	7.	8.
1. Condition	1							
2. Quizscore	-0,109	1						
3.Social Pressure	-0,061	,510(**)	1					
4. Involvement	-0,191	,308(**)	,348(**)	1				
5. Adherence	,329(**)	,490(**)	,448(**)	,516(**)	1			
6. Information Seeking Intention	0,008	,457(**)	,348(**)	,550(**)	,651(**)	1		
7. Understandability	0,061	,366(**)	0,141	,261(**)	0,178	,335(**)	1	
8. Credibility	0,028	0,186	,302(**)	,211(*)	,363(**)	0,178	,356(**)	1
9. Information Seeking Behavior	-0,045	-0,033	-0,018	-,207(*)	-0,153	-0,091	-0,117	0,094

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Tabel 2

Mean scores and standard deviations

	I	II	III	IV	Total
Quizscore	M=9.76	M=10,8	M=9,65	M=9,32	M=9,89
	SD=2,83	SD=2,84	SD=2,19	SD=2,9	SD=2,73
Social Pressure	M=2,96	M=3,05	M=3,16	M=2,79	M=2,99
	SD=0,75	SD=0,74	SD=0,65	SD=0,74	SD=0,72
Involvement	M=3,25	M=3,4	M=2,83	M=2,96	M=3,11
	SD=0,75	SD=0,73	SD=0,76	SD=0,8	SD=0,78
Adherence	M=3,36	M=3,24	M=2,78	M=2,78	M=2,99
	SD=1,08	SD=1,0	SD=0,74	SD=0,74	SD=0,97
Information	M=3,24	M=3,3	M=3,02	M=3,3	M=3,22
Seeking Intention	SD=0,96	SD=0,98	SD=0,83	SD=0,85	SD=0,9
Understandability	M=3,82	M=3,92	M=3,76	M=3,98	M=3,87
	SD=0,61	SD=0,51	SD=0,64	SD=0,73	SD=0,62
Credibility	M=3,8	M=3,7	M=3,76	M=3,98	M=3,87
	SD=0,76	SD=0,54	SD=0,64	SD=0,73	SD=0,62

Effects of manipulation

The four different conditions were supposed to create different levels of social pressure and involvement. To be able to rule out the possibility that differences in the understandability and credibility of the articles bias the results, conditions were expected not to differ with regard to these two factors. Information seeking, by contrast, was expected to be significantly higher in the groups high on one or both factors.

Social Pressure. Social Pressure was expected to be higher in the second and third condition. Contrary to the expectations, the results show no significant difference between the four conditions ($F(3,96)=1.26, p=0.29$). No interaction effect was found. No statistic significance was found between genders in the different groups ($F(1,99)=1.926, p=0.17$).

Involvement. Involvement was expected to be higher in the first two conditions. The effect of involvement was found with a tendency to significance with two sided testing. However, one should consider that in an appropriate one sided test, the expected effect would be significant on a 0,05 level. Therefore we can conclude that the conditions that were supposed to create higher levels involvement (M=3,25 and M=3,4) actually lead to

higher involvement than conditions that were supposed to have low involvement (M=2,93 and M=2,65).

Credibility. Both articles were perceived as credible (M=3,7 and M=3,86). No differences between the groups were found. (F(3,96)=0.37,p=0.78 and F(3,95)=0.21,p=0.9).

Understandability. Both articles were perceived as very understandable (M=4.15 and M=3.6). No differences between the groups were found. (F(3,95)= 2.11,p=0.11) and (F(3,96)=0.33,p=0.80).

Information seeking. The four different conditions were supposed to create different levels of information seeking. Both Information Seeking Behavior and Information Seeking Intention were supposed to be higher in the conditions that were high on social pressure and/or involvement. The highest level of both factors was expected in condition three because both factors were high in this condition.

In the study, however, no significant differences were found in neither Information Seeking Behavior (F(3,96)=1.32,p=0.27) nor Information Seeking Intention (F(3,96)=0.39,p=0.76). Therefore it can be assumed that the different conditions had no significant effect on Information Seeking in the study.

Testing of hypotheses

Three different hypotheses were tested in the study.

Hypothesis 1: According to Hypothesis 1, high social pressure will lead to higher levels of adherence. Because of this reason, participants in condition two and three should be motivated more to seek relevant information than participants in group one and four.

Although the groups were significantly different (F(3,95)=4,1,p=0,09), Hypothesis 1 can not be supported, because no main effect existed when both groups high on social pressure (2 and 3) were compared with the control groups (F(1,97)=0,02,p=0.88). No interaction effects were found. Based on these results, it can not be concluded that Social Pressure influences Individuals to seek risk relevant information in this study.

Hypothesis 2 states that a message high on involvement will create better adherence than a message low on involvement. Therefore, individuals in group one and two were expected to show a higher degree of adherence than participants in the other two groups.

In concordance with these expectations, a tendency to significance was found with two sided testing ($F(3,95)=4.098, p=0.09$). When a one-sided test is used, group one and two differ significantly from groups three and four on a 0,05 level. Therefore it can be concluded that adherence probability is higher in condition one ($M=3.36$) and two (3.24) than in group three ($M=2.78$) and four ($M=2.58$). According to these results, hypothesis 2 can be supported.

Hypothesis 3 assumes that high levels of involvement will lead to a high level of remembrance. Therefore, participants in group one and two were expected to remember more of the presented article and therefore perform better in the quiz than the other two groups. Contrary to this findings, however, no significant difference was found between the different conditions ($F(3,96)=1.51, p=0.22$). Therefore we can not conclude that involvement leads to better remembrance and can not support hypothesis three.

Perceived Knowledge. Perceived Knowledge was medium ($M=2.88$). No differences between the groups were found ($F(3,96)=1.12, p=0.35$. Therefore, we can conclude that the conditions did not differ in their perceived amount of knowledge. This is in concordance with the fact that no differences were found in quiz scores neither. Scores on the quiz did not differ between the conditions ($F(3,96)=1.52, p=0,22$. The mean score (M) was 9,84.

Discussion

The main purpose of this experiment was to study the influence of the factors Social Pressure and Involvement on Adherence Probability and the influence of the factor Involvement on Remembrance. To study the effect of these factors, different levels of both factors had to be created. A high level of social pressure was to be created through informing participants that general knowledge could be required in an interview for a job. In the low condition, by contrast, participants were given a tip concerning female behaviour in an interview for a job. Although the source was judged very understandable and credible throughout all conditions, no significant effect was found in creating social pressure. Different explanations can be given why the manipulation failed to create a significant difference in social pressure. The most probable one is that the manipulation was not strong enough. First of all, it is possible that the manipulation was not apparent enough for participants to recognize due to its position and/or size. Second, it could also be possible that the subject did not matter to participants sufficiently. Due to the fact that all participants in the experiment were students, it can be assumed that this was the case

because they either already possessed sufficient knowledge or did not perceive the subject as interesting for them at the moment. Due to these possibilities, it would have been useful to add items to assess participant's state of knowledge about job interviews as well as their current perception of its importance. The possibility that the tip about female behaviour in fact was not perceived as neutral by females can be ruled out due to the fact that no differences in social pressure existed between the genders within both low conditions.

Another, more general explanation could be that 72 per cent of participants were Psychology students and thus can be expected to have some prior experience in the construction of experiments. Although the credibility of the application tips was perceived very high, it is possible that respondents were able to identify the link between the tip that knowledge about H5N1 could be required in an interview for a job and the information provided about this topic in the second article. Possibly, this could have led to a lesser degree of experienced social pressure due to the fact they considered the information presented rather as a part of the experiment than as actual tips for an application. For that reason, it would have been useful to ask participants whether or not they had an idea about the purpose of the experiment at the end of the survey and to take this into consideration with regard to both manipulations.

To create high levels of involvement, participants were presented an article that informed them about the worldwide danger of *Influenza A* viruses and the H5N1 virus. In addition, they were shown a table of victims that came from the same province and were approximately the same age as the respondents. When a two-sided test was used, involvement had a tendency to significance to be higher in the high involvement conditions. When a one-sided test was used, however, involvement was significantly higher in the high involvement conditions (on a 0,05 level). An interesting finding was that both groups in the low involvement condition scored higher on involvement than expected: although it can not be assumed that one or more participants had a direct relation to the Asian continent, the majority in both groups stated to feel somewhat involved. With regard to Johnson's (2005) finding that involvement represents the personal importance, interest and significance of the risk topic to the individual it can be assumed that the low involvement conditions had a considerable influence on participant's perception of the risk. The most probable explanation for this outcome is that participants in the low involvement condition still felt threatened by the described situation. This could be due to participant's knowledge of prior cases of H5N1 in Europe or the understanding that the described virus hardly could be constricted to the Asian continent. Other possibilities could be that

participants felt threatened by indirect consequences of a pandemic on the Asian continent or that the high level of involvement resulted from compassion with the at-risk population. To make a reliable estimate of how and to what extend the two low involvement conditions did create involvement, it would have been helpful to add items that measure to what degree participants perceived a pandemic on the Asian continent to hold direct and indirect consequences for them. Other useful questions would have been to ask participants if they believed that a pandemic could actually be contained on one continent and in how far they felt compassionate with the at–risk-population. Contrary to the expectations, no higher degrees of information seeking behaviour or information seeking intention were created to in the two high involvement conditions. With regard to the fact that involvement was relatively high throughout the conditions, however, the results still are supported by the Elaboration Likelihood Model (Petty and Cacioppo, 1986). According to the model, individuals will elaborate information extensively via the so-called central route when involvement is high. Therefore we can conclude that this was the case in all four conditions.

As stated in the first hypothesis, messages high on social pressure were expected to create better adherence than messages low on social pressure. In the experiment, however, no significant difference between control group and experimental group was found. Therefore, the first hypothesis can not be supported. The most probable explanation for this outcome is that no significant differences in social pressure existed between the conditions. Therefore, no valid assumptions can be made about the influence of social pressure on adherence.

The second hypothesis stated that a message high on involvement will create better adherence than a message low on involvement. Because of the fact that adherence was significantly higher in the high involvement conditions than in the low involvement conditions, hypothesis two can be supported. Since involvement only was significant on a one-sided test, the same test was used to measure differences in adherence probability.

According to the third hypothesis, a message high on involvement will create a higher degree of remembrance than a message low on involvement. This hypothesis was not supported by the data. This poses a contrast to the work of Petty and Cacioppo (1981) and Eagly and Chaiken (1993). To explain these outcomes, a number of potential explanations need to be taken into account. First of all, it is important to consider the high degree of involvement in both groups. According to the authors named above, issues that are judged as personally relevant or important are likely to generate more systematic processing and

therefore can be expected to lead to better processing. Due to the fact that participants in all four conditions were found to be involved to a considerable degree, it is possible that all groups were sufficiently involved to process the given information systematically. Another possible explanation for these outcomes could be the limited discriminative validity of the test. It is possible that a longer and/or better constructed test could have measured the differences between the high and low involvement conditions more accurately. The finding that no between-group differences were found with regard to perceived knowledge indicates consistency between perceived and actual knowledge.

Conclusion

Based on the findings as well as on the shortcomings of this experiment, several propositions can be made regarding both the implementation and the focus of further research. With regard to our own inability to create social pressure, experimenters are advised to make sure that the manipulations they use are sufficient in strength, size and visibility. In addition, it should be assured that the subject matches participant's interest and that participant's possible experience with test construction does not interfere with the presented information. If the use of a pre-test is not possible due to the limited extend of the study, experimenters at least should add items to control for these factors. In case information about a large-scaled and potentially multidimensional risk is used for manipulation, it would also be beneficial to try to take into account all direct and indirect stakes participants have in the described situation to avoid unexpected effects. An interesting implication for research would be to identify different dimensions of involvement and to study their distinctive effects on adherence probability. For example, it would be interesting to study the different influence of direct and indirect involvement on adherence probability. Although hypothesis two could not be supported and no valid assumptions were made about the influence of social pressure on adherence probability, it does not mean that no significant influence can be found in future. Therefore, we encourage future researchers into this topic. With regard to the Elaboration Likelihood Model (Petty and Cacioppo, 1986) it would also be of interest to study if a kind of involvement threshold exists or if elaboration can increase further after the threshold to central processing is reached. Possibly, the effect of different dimensions of involvement on information processing could also be studied with regard to the model.

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Appendix 1: Low involvement

SOLLICITEREN EN DE EERSTE INDRUK: VIJF TIPS

De eerste indruk is ontzettend belangrijk. Je hebt maar één kans om een eerste indruk te maken. Doe het dus goed! Nobiles geeft je onderstaande tips:

1. De eerste indruk maak je met je sollicitatiebrief. Natuurlijk zorg je ervoor dat deze brief in intelligent en foutloos Nederlands is opgesteld.

2. Mensen kennen aan aantrekkelijke mensen allerlei positieve eigenschappen toe. Minder aantrekkelijke mensen moeten het – gechargeerd gesteld - doen met kwalificaties als lui, geniepig en dom. Het loont dus om er op je paasbest uit te zien. De uiterlijke aantrekkelijkheid speelt vooral een rol als kandidaat niet goed gekwalificeerd is. Zijn je kwalificaties goed tot uitstekend, dan speelt het uiterlijk geen rol.

3. Lichaamstaal is belangrijk. Het recht in de ogen kijken van gesprekspartners wordt gezien als een indicator van een sterk karakter. Veel gebaren, vrijuit spreken en een positieve gezichtsuitdrukking worden ook positief beoordeeld.

4. Pieker niet over de indruk die je maakt, maar richt je op de ander. Toon interesse, stel vragen. Dat wordt niet alleen gewaardeerd, je doet zo ook informatie op die je helpt beslissen of dit bedrijf bij je past.

5. Solliciteer je als vrouw voor een leidinggevende positie, dan word je geacht eigenschappen te laten zien die strijdig zijn met de eigenschappen die traditioneel aan vrouwen worden toebedacht. Aantrekkelijke vrouwen worden namelijk niet geschikt gevonden voor leidinggevende functies. Kleed je dus niet te aantrekkelijk en liefst zakelijk wanneer je solliciteert voor een management traineeship.

Appendix 2: High involvement

SOLLICITEREN EN DE EERSTE INDRUK: VIJF TIPS

De eerste indruk is ontzettend belangrijk. Je hebt maar één kans om een eerste indruk te maken. Doe het dus goed! Nobiles geeft je onderstaande tips:

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5. Wees op de hoogte van actuele gebeurtenissen. Niet alleen interesse in de bedrijf, maar ook algemene interesse wordt op prijs gesteld. Vragen als "wie is de buitenminister van de VS" of "Waarom is die influenza A virus zo gevaarlijk" worden vaak gebruikt om algemene kennis te meten. Geef geen persoonlijke mening, maar alleen feiten.

Appendix 3:Low involvement

According to many experts, pandemic influenza (wereldwijde griep epidemie) today is the most significant global public health emergency caused by a naturally occurring pathogen.
Lacking a proof-reading mechanism, Influenza A viruses undergo constant stepwise changes in their genetic make-up. This so called antigenic drift enables the swapping of co infection with human and avian (pluimvee) influenza viruses. As this occurs, it will create a new "hybrid" virus that will be entirely or largely unfamiliar to the human immune system. If this new "hybrid" virus contains the right mix of genes, it can cause severe disease with an easy sustainable human-to-human transaction. This will ignite a pandemic. Pandemics are rare but recurring events, associated with great morbidity, significant mortality, and considerable social and economic disruption. Given the vulnerability of the population and the highly contagious nature of influenza viruses, all parts of the world can become rapidly infected.

Of all viruses in the vast avian influenza pool, H5N1 is of particular concern for human health for two reasons. First, H5N1, though strictly an avian pathogen, has a documented ability to pass directly from birds to humans. Second, once in humans, H5N1 causes severe disease with very high mortality. These two features combine to make H5N1 of concern for a third and greater reason: its potential to ignite an especially severe pandemic.
During 2004, large parts of Europe experienced unprecedented outbreaks of highly pathogenic avian influenza, caused by the H5N1 virus, in poultry (pluimvee). The confirmation of human cases gave the outbreaks a new dimension. They were now a health threat to populations in affected countries and, possibly, throughout the world. All prerequisites for the start of a pandemic had been met save one, namely the onset of efficient human-to-human transmission. Should the virus improve its transmissibility, everyone in the world would be vulnerable to infection by a

a pathogen - passed along by a cough or a sneeze - entirely foreign to the human immune system.

[...] The massive control efforts had an impact, and the outbreaks declined sharply during March except in Thailand, where sporadic outbreaks continued to be reported through April. Predictably, new human cases dwindled then ceased, with the last occurring in mid-March in Viet Nam. From January through March, Viet Nam and Thailand together reported 35 cases, of which 24 were fatal.

Table 1. Human cases, Viet Nam

First phase

No.	Sex	Age	Province	Onset	Outcome
1	female	25 years	Ha Nam	25.12.03	died 30.12.03
2	male	16 years	Ha Tay	29.12.03	died 11.01.04
3	female	21 years	Ha Tay	1.01.04	died 9.01.04
4	male	18 years	Ha Nam	23.12.03	died 8.01.04
5	female	8 years	Ha Nam	11.01.04	died 17.01.04
6	female	24 years	Ha Nam	13.01.04	recovered
7	male	13 years	Ho Chi Minh City	14.01.04	died 22.01.04
8	female	23 years	Thai Binh	10.01.04	died 23.01.04
9	female	30 years	Ha Nam	10.01.04	died 23.01.04
10	male	19 years	Ha Tay	11.01.04	recovered
11	female	20 years	Bac Giang	9.01.04	recovered
12	male	18 years	Ha Nam	25.01.04	died 2.02.04
13	female	16 years	Lam Dong	21.01.04	died 3.02.04
14	female	17 years	Ha Tay	12.01.04	died 27.01.04
15	female	27 years	Ha Tay	24.01.04	died 3.02.04
16	male	24 years	Thai Binh	29.01.04	died 3.02.04
17	male	23 years	Ha Nam	28.01.04	recovered
18	male	28 years	Ha Tay	29.01.04	died 9.02.04
19	male	22 years	Ha Nam	31.01.04	recovered
20	male	15 years	Tanh Hoa	9.02.04	recovered
21	male	4 years	Thai Binh	5.02.04	died 18.02.04
22	female	16 months	Ha Nam	14.02.04	recovered
23	male	21 years	Dong Nai	10.03.04	died 15.03.04

The H5N1 virus has given us not only a clear warning but time to enhance preparedness. During 2004, concern about the threat of a pandemic set in motion a number of activities, coordinated by WHO, that are leaving the world better prepared for the next pandemic.
[…] Further it is crucially important, that individuals comply with a wide range of medical(e.g. vaccinations) and non-medical interventions (personal hygiene, wearing masks and quarantine) that can potentially reduce opportunities for transmission at the start of a pandemic and slow international spread.

Appendix 4: High involvement

According to many experts, pandemic influenza (wereldwijde griep epidemie) today is the most significant global public health emergency caused by a naturally occurring pathogen.
Lacking a proof-reading mechanism, Influenza A viruses undergo constant stepwise changes in their genetic make-up. This so called antigenic drift enables the swapping of co infection with human and avian (pluimvee) influenza viruses. As this occurs, it will create a new "hybrid" virus that will be entirely or largely unfamiliar to the human immune system. If this new "hybrid" virus contains the right mix of genes, it can cause severe disease with an easy sustainable human-to-human transaction. This will ignite a pandemic. Pandemics are rare but recurring events, associated with great morbidity, significant mortality, and considerable social and economic disruption. Given the vulnerability of the population and the highly contagious nature of influenza viruses, all parts of the world can become rapidly infected.

Of all viruses in the vast avian influenza pool, H5N1 is of particular concern for human health for two reasons. First, H5N1, though strictly an avian pathogen, has a documented ability to pass directly from birds to humans. Second, once in humans, H5N1 causes severe disease with very high mortality. These two features combine to make H5N1 of concern for a third and greater reason: its potential to ignite an especially severe pandemic.
During 2004, large parts of Europe experienced unprecedented outbreaks of highly pathogenic avian influenza, caused by the H5N1 virus, in poultry (pluimvee). The confirmation of human cases gave the outbreaks a new dimension. They were now a health threat to populations in affected countries and, possibly, throughout the world. All prerequisites for the start of a pandemic had been met save one, namely the onset of efficient human-to-human transmission. Should the virus improve its transmissibility, everyone in the world would be vulnerable to infection by a pathogen – passed along by a cough or a sneeze – entirely foreign to the human immune system.

[...] The massive control efforts had an impact, and the outbreaks declined sharply during March except in France, where sporadic outbreaks continued to be reported through April. Predictably, new human cases dwindled then ceased, with the last occurring in mid-March in the Netherlands. From January through March, France and the Netherlands together reported 35 cases, of which 24 were fatal.

Table 1. Human cases, the Netherlands

First phase

No.	Sex	Age	Province	Onset	Outcome
1	female	25 years	Overijssel	25.12.03	died 30.12.03
2	male	16 years	Gelderland	29.12.03	died 11.01.04
3	female	21 years	Gelderland	1.01.04	died 9.01.04
4	male	18 years	Overijssel	23.12.03	died 8.01.04
5	female	8 years	Overijssel	11.01.04	died 17.01.04
6	female	24 years	Overijssel	13.01.04	recovered
7	male	13 years	Zeeland	14.01.04	died 22.01.04
8	female	23 years	Flevoland	10.01.04	died 23.01.04
9	female	30 years	Overijssel	10.01.04	died 23.01.04
10	male	19 years	Gelderland	11.01.04	recovered
11	female	20 years	Noord-Brabant	9.01.04	recovered
12	male	18 years	Overijssel	25.01.04	died 2.02.04
13	female	16 years	Groningen	21.01.04	died 3.02.04
14	female	17 years	Gelderland	12.01.04	died 27.01.04
15	female	27 years	Gelderland	24.01.04	died 3.02.04
16	male	24 years	Flevoland	29.01.04	died 3.02.04
17	male	23 years	Overijssel	28.01.04	recovered
18	male	28 years	Gelderland	29.01.04	died 9.02.04
19	male	22 years	Overijssel	31.01.04	recovered
20	male	15 years	Utrecht	9.02.04	recovered
21	male	4 years	Flevoland	5.02.04	died 18.02.04
22	female	16 months	Overijssel	14.02.04	recovered
23	male	21 years	Drenthe	10.03.04	died 15.03.04

The H5N1 virus has given us not only a clear warning but time to enhance preparedness. During 2004, concern about the threat of a pandemic set in motion a number of activities, coordinated by WHO, that are leaving the world better prepared for the next pandemic.
[…] Further it is crucially important, that individuals comply with a wide range of medical (e.g. vaccinations) and non-medical interventions (personal hygiene, wearing masks and quarantine) that can potentially reduce opportunities for transmission at the start of a pandemic and slow international spread.

Appendix 5: Demographics

1. Wat is uw geslacht?

- Man
- Vrouw

2. In welke instelling zit u?

- Utwente
- Saxion Hogeschool

andere, namelijk:

3. Welke opleiding volgt u?

- PSY
- TCW
- EDMM

andere, namelijk:

4. Wat is uw nationaliteit?

- Nederlands
- Duits

andere, namelijk:

5. In welke provincie woont u?

- Overijssel

andere, namelijk:

6. Wat is uw leeftijd?

Appendix 6: link choice

1. Zou u nu de keuze willen maken tussen 1 van de 4 sites hieronder? Dit kunt u doen door erop te klikken!

- http://www.cdc.gov/flu/protect/antiviral/
- http://www.who.int/csr/disease/influenza
- www.kiesjestudie.nl
- www.rtl.nl/reality/beautyendenerd/

Appendix 7: Questionnaire

1. U hebt net een artikel over de gevaren van H5N1 gelezen. Geef nu aan, in hoeverre u eens bent met volgende stellingen:

	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
Ik voel me betrokken bij dit risico	☐ Helemaal niet	☐ Nauwelijks	☐ Enigszins	☐ Nogal	☐ Heel erg
Ik vind het belangrijk informatie te hebben over het desbetreffende risico	Helemaal niet ☐	Nauwelijks ☐	Enigszins ☐	Nogal ☐	Heel erg ☐
Ik ben geïnteresseerd in de gevolgen van H5N1	Helemaal niet	☐ Nauwelijks	☐ Enigszins	☐ Nogal	☐ Heel erg

2. Hoe ernstig zullen de gevolgen van een pandemie zoals beschreven voor u zijn?

	Helemaal niet ernstig	Niet echt ernstig	Enigszins ernstig	Nogal ernstig	Zeer ernstig
Als er een Pandemie zoals in het artikel uitbreekt, zijn de gevolgen voor mij	☐ Helemaal niet ernstig	☐ Niet echt ernstig	☐ Enigszins ernstig	☐ Nogal ernstig	☐ Zeer ernstig

3. Hoe denkt u, dat mensen die belangrijk voor u zijn met informatie over pandemieën omgaan?In hoeverre bent u eens met de volgende stellingen?

	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
Mensen in mijn omgeving vinden dat ik op de hoogte moet zijn van risico's als H5N1.	☐ Helemaal niet	☐ Nauwelijks	☐ Enigszins	☐ Nogal	☐ Heel erg
Er word van mij verwacht dat ik wat weet over dit onderwerp.	☐ Helemaal niet	☐ Nauwelijks	☐ Enigszins	☐ Nogal	☐ Heel erg
In het algemeen ben ik geneigd om te doen wat andere van mij verwachten.	☐ Helemaal niet	☐ Nauwelijks	☐ Enigszins	☐ Nogal	☐ Heel erg
De mening van mensen om mij heen is belangrijk voor mij.	☐ Helemaal niet	☐ Nauwelijks	☐ Enigszins	☐ Nogal	☐ Heel erg

4. Wanneer ik lees over een pandemie als beschreven in het artikel, dan

	Zeer klein	Nogal klein	Niet klein/niet groot	Nogal groot	Zeer groot
Is de kans dat ik voorzorgmaatregelen neem	☐ Zeer klein	☐ Nogal klein	☐ Niet klein/niet groot	☐ Nogal groot	☐ Zeer groot
Is de kans dat ik gegeven instructies opvolg	Zeer klein ☐	Nogal klein ☐	Niet klein/niet groot ☐	Nogal groot ☐	Zeer groot ☐
Is de kans dat ik informatie zoek over	☐ Zeer klein	☐ Nogal klein	☐ Niet	☐ Nogal	☐ Zeer groot

	Zeer klein	Nogal klein	Niet klein/niet groot	Nogal groot	Zeer groot
dit onderwerp			klein/niet groot	groot	
Is de kans dat ik informatie over dergelijke risico's in de gaten houd	Zeer klein	Nogal klein	Niet klein/niet groot	Nogal groot	Zeer groot

5. Hoe BEGRIJPELIJK vond u

	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
de sollicitatie tips	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
het WHO artikel	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg

6. Hoe GELOOFWAARDIG vond u

	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
de sollicitatie tips	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
het WHO artikel	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg

7. Tenslotte zouden wij graag van U willen weten hoeveel KENNIS u denkt te hebben over het gelezen artikel.

	Zeer weinig	Weinig	Enigszins	Veel	Zeer veel
De hoeveelheid kennis die ik heb over het gelezen artikel is	Zeer weinig	Weinig	Enigszins	Veel	Zeer veel

Appendix 8: Quiz. (high involvement)

1. Pandemic influenza today is the most significant global public health emergency caused by a naturally occurring pathogen.
2. There were 38 cases, of which 25 were fatal.
3. The most outbreaks were in Overijssel and Gelderland.
4. H5N1 has a strong proof-reading mechanism.
5. H5N1 is not yet transmissible from human to human.
6. H5N1 is not a strictly avian pathogen.
7. Antigenic drift is de transaction from avian pathogens on humans.
8. All prerequisites for the start of a pandemic have been met in France and the Netherlands.
9. Pandemics are associated with considerable social and economic disruption.
10. All influenza viruses are "hybrids".
11. Vaccination, wearing masks and personal Hygiene can potentially reduce opportunities for transmission. 12. Wearing masks and providing masks are both medical interventions.
13. The most victims were in Thailand.
14. Human to human transaction is the reason for genetic drift.
15. The WHO coordinates the preparation for the next pandemic.

Appendix 9: Quiz (low involvement)

1. Pandemic influenza today is the most significant global public health emergency caused by a naturally occurring pathogen.

2. There were 38 cases, of which 25 were fatal.
3. The most outbreaks were in Ha Nam and Ha Tay.
4. H5N1 has a strong proof-reading mechanism.
5. H5N1 is not yet transmissible from human to human.
6. H5N1 is not a strictly avian pathogen.
7. Antigenic drift is de transaction from avian pathogens on humans.
8. All prerequisites for the start of a pandemic have been met in Thailand and Viet Nam.
9. Pandemics are associated with considerable social and economic disruption.
10. All influenza viruses are “hybrids”.
11. Vaccination, wearing masks and personal Hygiene can potentially reduce opportunities for transmission. 12. Wearing masks and providing masks are both medical interventions.
13. The most victims were in Thailand.
14. Human to human transaction is the reason for genetic drift.
15. The WHO coordinates the preparation for the next pandemic.

Universiteit Twente
de ondernemende universitei

Bachelorthese

Social Pressure and Involvement –
to what Extend do these Factors influence Adherence Probability?

Enschede, Universiteit Twente – Faculteit Gedragswetenschappen

Abstract

In this experimental study, a 2x2 between subject design was used to create different levels of the factors social pressure and involvement to study its' effect on information seeking in general and on adherence probability in specific. Furthermore, the effect of involvement on remembrance was studied.

Due to the fact that the survey failed to create different levels of social pressure, no assumptions can be made with regard to this factor. Involvement, however, was found to have a significant effect on adherence probability. No effect on remembrance was found. Information seeking behaviour did not differ significantly differ between the groups, but was found to be high in all conditions. This is probably caused by the high levels of involvement throughout all conditions.

Key words: risk information; social pressure; involvement; adherence probability; remebrance

Introduction

In the last years, people's view of risks has changed dramatically. Individuals became more aware of and concerned about the risks they experience in their daily lives. In modern, highly industrialized countries, risk became a topic of nearly universal importance (Hampel, 2006). Nowadays, people are confronted with new and large-scaled risks that either are by-products of modern technology as pesticides or nuclear radiation or are influenced and amplified by them. As a consequence of international travel, dangerous pathogens as SARS and H5N1 are now able to cross geographical boundaries that limited their spread in the past. And due to satellite communications and the widespread accessibility of the internet, people all over the world can learn about any given risk within hours. This leads to a constant feeling of anxiety in society (Ropeik, 2004). To reduce feelings of anxiety, effective mass media campaigns are crucially important. In earlier days, communicating risk to the public used to be driven by expert conceptualisations of public information needs (Griffin, Dunwoody, & Neuwirth, 1999) and followed the assumption that most people do not posses sufficient knowledge of science and technology to be capable of judging risks and benefits (Gregory and Miller, 1998). Following this so-called "top-down" approach, risk communication simply used to stress possible threats and recommended behaviours to reduce these threats while the role of the receiver was neglected (Fessenden-Raden, Fitchen,& Heath, 1987). In more recent years, a different view of risk communication evolved: the "bottom up" approach. This approach tends to be more receiver-oriented and assumes that individuals will actively search information if it is relevant and useful to them in some way (Sjöberg, 2002). Although this approach does not propose that "top down" messages are completely ineffective, it states that risk communication is bound to fail if researchers and practitioners do not understand the interaction between message characteristics and audiences´ information processing characteristics (Griffin et al, 1999). Therefore, it is important to understand the ways various audiences and audience segments seek and process the risk information they encounter in the media and other communication channels (Griffin et al, 1999).

The aim of this experimental study was to find out to what extend differences in message characteristics influence individual adherence probability and remembrance of the message. Therefore, a survey with four different messages was created to evoke different levels of the factors social pressure and involvement to study its' effect on adherence probability and remembrance. In the last 25 years, a number of general models have been

proposed to explain information seeking behaviour and interacting variables. But rather than describing the same set of activities, these models rather represent different aspects of the same general outcome. Therefore, the frameworks are complementary, rather than competing (Wilson, 1999). In 1981, Wilson proposed that the information need is not a primary one but a secondary need. It arises out of needs from environmental, social and person-related variables. He also stated that the same context that leads to information seeking behaviour also gives ground to the rise of barriers that impede the search for information. In contrast, the sense making theory (Dervin, 1999) focuses on an information gap between a situation in time and a planned outcome and a bridge as mean to close the gap. The gap is both a barrier to sense making and a prompt to action, for example to undertake information seeking.

In 2006, Godbold combined Wilson's and Dervin's frameworks in the so-called "Extended Model of Information Seeking Behaviour". In this framework, a person in a certain situation stands at the information gap, contemplating the gap and the need for sense making. Based on the decision derived from his or her conclusion, the person then undertakes some course of action to make sense by employing one or more of a full range of options for handling information. Therefore, the existence of an information gap is not only influenced by information seeking behaviour, but also by factors as the importance of satisfying the need (e.g. perceived involvement and personal relevance) and the availability of information sources.

But because these theories explain information behaviour only in general terms and do not search for separate entities that affect this kind of behaviour, no explicit claims can be made. In 1999, Griffin et al proposed a more specific model of risk information seeking and processing (RISP). Based on parts of the Heuristic-Systematic Model (Eagly and Chaiken, 1993) the Theory of Planned Behaviour (Ajzen, 1991) and mass media research, RISP proposed a variety of variables that might predispose an individual to seek and process information in various risk settings (Griffin et al, 1999). The model also states that different individuals have different levels of amount of information they believe they need in order to feel confident to judge a given risk. According to the model, information seeking and processing is directly affected by 3 factors: Information Sufficiency, Relevant Channel Beliefs and Perceived Information Gathering Capacity. In addition, the indirect factors Affective Responses, Informational Subjective Norms, Perceived Hazard Characteristics and Individual Characteristics are also influential for information processing and seeking.

*Social Pressure.*According to Atkin (1972), the assumption that significant others (i.e. family and friends) are knowledgeable about an issue might stimulate the individual to seek information. Individuals faced with risky situations are inclined to base their decisions on which behaviour to pursue first by considering what other people do and possible reactions of family, friends, and others are seen as great influences of these decisions (Neuwirth and Frederick, 2004). An individual's perception that relevant others think that he or she should (or should not) perform a particular behaviour can be at least as important as predictor of behaviour as the person's own cognitions and attitudes about performing the behaviour (Ajzen and Fishbein, 1980; Fishbein and Ajzen, 1975).

RISP proposes, that informational subjective norms might affect information sufficiency and therefore indirectly predict to ones motivation to seek additional information or to reject information. According to the Theory of Planned Behaviour, in contrast, Normative Beliefs are supposed to directly affect a person's behavioural intentions (Ajzen, 2002). Therefore, we expect high levels of perceived social pressure to lead to higher levels of information seeking than low levels of information seeking behaviour in the experiment.

*Involvement.*Involvement represents the personal importance, interest and significance of the risk topic to the individual and therefore determines the extend to which an individual is willing to think about the topic (Johnson 2005). Research by Nathan, Heath and Douglas (1992) has shown that involvement is positively associated with the individual's willingness to gather information. When people are confronted with a threat or an uncertainty, they will evaluate whether their self interests are affected. This consequently will lead or lead not to problem recognition. Without recognition of the problem, individuals will not experience sufficient involvement and motivation to seek information (Heath, Liao, & Douglas, 1995). In the Elaboration Likelihood Model, Involvement is an important predictor of how information is processed. According to the model, the process of information can take two separate routes: When involvement is high, people elaborate information extensively via the central route and will relate to strong messages. In contrast, when involvement is low, individuals tend to use the so-called peripheral route. This means that they not extensively elaborate the information, but rather rely on environmental characteristics of the source such as perceived credibility or the quality of presentation (Petty and Cacioppo, 1986). With regard to the authors named above, we expect high levels of involvement to lead to higher levels of information seeking than lower levels of involvement. Given the influence of both independent variables apart,

we expect high levels of both factors combined to lead to the highest level of information seeking in this experiment. To judge the effectiveness of risk communication, it is necessary to find out how people respond to the campaign and whether or not they intent to adopt to the proposed risk related behaviours (Kahlor, 2003). In their study about adherence to screening recommendations in women with and without a family history of breast cancer, Rutten and Ianotti (2003) found, that issue involvement is significantly associated with adherence. Further is proposed, that both a reported family history of breast cancer and perceived vulnerability were positively associated with repeated mammography participation (Lerman, 1990). In Social Cognitive Theory, norms influence behavior anticipatory by the social consequences they provide. Behavior that fulfils social norms gains positive social reactions and thus provides further self incentives and contributes to adherence to healthful behavior. Behavior that violates social norms, in contrast, brings social censure and will guide to non-adherence (Bandura, 1986). Although these research outcomes are all based on health issues, we therefore expect both social pressure and involvement to influence on adherence.

*Hypothesis 1.*A message with high social pressure will create better adherence than a message with low social pressure.

*Hypothesis 2.*A message high on involvement will create better adherence than a message with low involvement.

Another important aspect within risk communication is how much an individual remembers in the different conditions. An issue judged to be personally relevant or important is more likely to generate more systematic processing than an issue considered less important and relevant (Petty and Cacioppo, 1981: Eagly and Chaiken, 1993). According to Eagly and Chaiken (1993), attitudes developed through more intense information processing are more stable and last longer than those developed through superficial processing. RISP proposes that the effort expended in gathering and especially processing information about preventive behaviours affect the stability of beliefs and attitudes about that behaviour derived through those activities (Griffin et al, 1999). We therefore expect that high levels of involvement will lead to higher levels of remembrance.

*Hypothesis 3.*A message high on involvement will create high levels of information remembrance.

Method

Materials

Two articles were used to manipulate the independent variables social pressure and involvement. After filling out several demographic questions and reading both articles, participants were asked to answer three different sets of items used to measure the dependent variables information seeking (a combination of the constructs information seeking behaviour and information seeking intention), adherence probability and remembrance.

Participants

One hundred students between 19 and 29 (mean age= 22.65) participated in the study. Eighty-eight percent were enrolled as students at Twente University, 11 per cent at Saxion Highschool and one participant at another university. There where significantly more Psychology students (72%) than TCW (19%), EDMM (3%) and other (6%) students. Although there were significantly more German than Dutch participants, the vast majority lived in the province Overijssel. No significant gender difference was found within or between the groups.

Design and Procedure

The study design was a 2 (social pressure: high vs low) x 2 (involvement: high vs low) between subject experiment. Conditions were tested one at a time. After a sufficient number of participants had completed the survey in one condition, it was into the next condition. All participants were sent the same link leading them to the experiment. After 25 respondents had completed the survey in the condition low on both factors, the first article was changed to create a condition high on social pressure and low on involvement. After another 25 respondents completed the survey, the second article was changed into the high condition as well to create a condition high on both factors. Thereafter, the condition was changed to low social pressure x high involvement after another 25 participants. After the last 25 participants completely had filled out this condition, the experiment was completed. The group manipulations will be discussed below.

At the beginning of the experiment, respondents were asked to answer some questions about their demographic background. Subsequently, they started the experiment. They first read 5 application tips provided by Nobilis.nl used to manipulate the independent variable social pressure and then a shortened version of the article: "Avian Influenza: assessing the pandemic threat" published by the WHO in 2004 which intended to manipulate the second independent variable involvement.

Social Pressure. Respondents were given 5 application tips provided by Nobilis.nl, a source expected to be reliable. The first 4 tips were general application tips concerning the letter of application, a neat appearance, the body language and the behavior during the conversation and were the same in both conditions. The 5th tip was different: The condition low on social pressure contained a tip for women applying for a leadership position, a stimulus which had no relation with the further experiment. In the high involvement condition, participants were informed that questions about recent events often were used to measure general interest and general knowledge in an interview for a job. The term Influenza A virus was explicitly mentioned to create a high level of social pressure. Therefore, we expected the tip about general interest to lead to high levels of social pressure and the tip about woman applying for a leadership position to lead to low levels of social pressure.

Involvement. Two different levels of involvement were created. Respondents received a shortened article published by the WHO (World Health Organization) which described the danger of influenza A viruses in general and of the H5N1 virus in particular. The first part of the article contained information about the nature of influenza A viruses, their possibility to change their genetic makeup and the severe consequences resulting from a mix up between human and avian viruses. Consequently, the formation, occurrence and particular danger of the H5N1 virus was stressed. To evoke high involvement, pandemic influenza was rated as a danger to the whole world in one of the two conditions. In the low involvement condition, by contrast, pandemic influenza was solely described as a danger to the Asian continent. Whereas the described cases of H5N1 were situated in Europe in the high involvement condition, they were supposed to have occurred in Asia. Furthermore, the article contained a table which showed sex, age, province and outcome (“died” or “recovered”) of the infected victims. In both conditions, most of the victims were approximately the same age as the respondents. While the majority of victims used to live

in the same province (Overijssel) as the respondents in the high involvement condition, they were claimed to have lived in provinces of Vietnam in the low involvement condition. The distribution of victims over different provinces was the same in both conditions.

In sum, 4 groups were created out of two manipulations of the variables social pressure and involvement. The manipulation of these variables results in four different articles as shown below.

Table 1

Conditions

	Involvement	
Social Pressure	High	Low
High	II Europe General knowledge requested	III Asia General knowledge requested
Low	I Europe No general knowledge requested	IV Asia No general knowledge requested

Measures

Three different sets of items were assessed in the study. The first set of questions referred to information seeking behavior, one of the two constructs used to measure the independent variable information seeking. Respondents were asked to choose between four different website links. Two links were relevant to the article before. These links indicated information seeking behavior. The other two links were not relevant, and thus did not indicate information seeking behavior. These links were, however, interesting links about topics students were supposed to find interesting. Successively, students were asked to fill in a questionnaire. This questionnaire measured responses on a five point scale , with one indicating that the respondent highly disagreed with a given thought or statement and five indicating that that respondents highly agreed with a given thought or statement. The questionnaire measured level of social pressure, level of involvement and adherence probability. These questions were already used and validated in another study about

information seeking behavior (Huurne, ter, 2008). Also, respondents were asked about the credibility and the understandability of both articles. Finally, they were asked to estimate their knowledge about the article about the previous read article about avian influenza.

Social pressure. Social pressure was measured with a reliable four item scale (α=0,699). Respondents were asked if they thought that people in their environment saw it as important that they were informed about risks as H5N1, if they thought it was expected from them to know something about this topic, if they were commonly inclined to what others expected from them and if they found the meaning of others important for themselves. The first set of items in this scale was used to see whether or not there was a difference between the high and low social pressure conditions. The last two items, on the other hand, were used to asses if respondents were influenced by social pressure.

Involvement. Involvement was measured using a reliable four item scale (α=0,812). Respondents were asked how committed they felt with the topic, how important they find it to have information about the described risk, and to what extent they were interested in the consequences of H5N1. Furthermore, they were asked to estimate how severe the consequences of a pandemic as described would be for them personally. These questions served to see whether the difference in involvement between the respondents given the Europe and Asia condition, did occur as expected.

Adherence probability. Adherence probability was measured using a two-item scale (r=0.717, α=0.835). Respondents were asked how likely they were to take precautions if the risk occurred and whether or not they would adhere to given instructions.

Information seeking intention. Information seeking intention was also measured with a reliable two item scale (r=0.625, α=0.77). Participants were asked to judge the probability that they would search information about the risk and to report the likelihood of them keeping informed about similar events.

Credibility. Credibility was assessed using a two item scale asking participants to separately judge the credibility of both articles.

Understandability. Understandability was assessed by asking participants how understandable they judged each article.

Perceived Knowledge. Perceived Knowledge was assessed with one item. Participants were asked to rate their perceived level of knowledge of the article.

The last question was used to assess how much knowledge participants in the different conditions received from the WHO article. Therefore, participants received 15 true/false

questions about the article. Two different versions of the quiz were established to fit the participants' knowledge derived in one of the two versions of the article.

Results

Descriptive statistics. There were no significant differences between the four conditions in gender (F(3,96)=1.78,p=0.16), university (F(3,96)=2.13,p=0.1), study (F(3,96)=1.85,p=0.14), nationality (F(3,96)=1.16,p=0.33), province (F(3,96)=0.33,p=0.8) or age (F(3,96)=1.4,p=0.24).

Table 1

Pearson correlations obtained in the experiment

	1.	2.	3.	4.	5.	6.	7.	8.
1. Condition	1							
2. Quizscore	-0,109	1						
3.Social Pressure	-0,061	,510(**)	1					
4. Involvement	-0,191	,308(**)	,348(**)	1				
5. Adherence	,329(**)	,490(**)	,448(**)	,516(**)	1			
6. Information Seeking Intention	0,008	,457(**)	,348(**)	,550(**)	,651(**)	1		
7. Understandability	0,061	,366(**)	0,141	,261(**)	0,178	,335(**)	1	
8. Credibility	0,028	0,186	,302(**)	,211(*)	,363(**)	0,178	,356(**)	1
9. Information Seeking Behavior	-0,045	-0,033	-0,018	-,207(*)	-0,153	-0,091	-0,117	0,094

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Tabel 2

Mean scores and standard deviations

	I	II	III	IV	Total
Quizscore	M=9.76	M=10,8	M=9,65	M=9,32	M=9,89
	SD=2,83	SD=2,84	SD=2,19	SD=2,9	SD=2,73
Social Pressure	M=2,96	M=3,05	M=3,16	M=2,79	M=2,99
	SD=0,75	SD=0,74	SD=0,65	SD=0,74	SD=0,72
Involvement	M=3,25	M=3,4	M=2,83	M=2,96	M=3,11
	SD=0,75	SD=0,73	SD=0,76	SD=0,8	SD=0,78
Adherence	M=3,36	M=3,24	M=2,78	M=2,78	M=2,99
	SD=1,08	SD=1,0	SD=0,74	SD=0,74	SD=0,97
Information	M=3,24	M=3,3	M=3,02	M=3,3	M=3,22
Seeking Intention	SD=0,96	SD=0,98	SD=0,83	SD=0,85	SD=0,9
Understandability	M=3,82	M=3,92	M=3,76	M=3,98	M=3,87
	SD=0,61	SD=0,51	SD=0,64	SD=0,73	SD=0,62
Credibility	M=3,8	M=3,7	M=3,76	M=3,98	M=3,87
	SD=0,76	SD=0,54	SD=0,64	SD=0,73	SD=0,62

Effects of manipulation

The four different conditions were supposed to create different levels of social pressure and involvement. To be able to rule out the possibility that differences in the understandability and credibility of the articles bias the results, conditions were expected not to differ with regard to these two factors. Information seeking, by contrast, was expected to be significantly higher in the groups high on one or both factors.

Social Pressure. Social Pressure was expected to be higher in the second and third condition. Contrary to the expectations, the results show no significant difference between the four conditions ($F(3,96)=1.26, p=0.29$). No interaction effect was found. No statistic significance was found between genders in the different groups ($F(1,99)=1.926, p=0.17$).

Involvement. Involvement was expected to be higher in the first two conditions. The effect of involvement was found with a tendency to significance with two sided testing. However, one should consider that in an appropriate one sided test, the expected effect would be significant on a 0,05 level. Therefore we can conclude that the conditions that were supposed to create higher levels involvement (M=3,25 and M=3,4) actually lead to

higher involvement than conditions that were supposed to have low involvement (M=2,93 and M=2,65).

Credibility. Both articles were perceived as credible (M=3,7 and M=3,86). No differences between the groups were found. (F(3,96)=0.37,p=0.78 and F(3,95)=0.21,p=0.9).

Understandability. Both articles were perceived as very understandable (M=4.15 and M=3.6). No differences between the groups were found. (F(3,95)= 2.11,p=0.11) and (F(3,96)=0.33,p=0.80).

Information seeking. The four different conditions were supposed to create different levels of information seeking. Both Information Seeking Behavior and Information Seeking Intention were supposed to be higher in the conditions that were high on social pressure and/or involvement. The highest level of both factors was expected in condition three because both factors were high in this condition.

In the study, however, no significant differences were found in neither Information Seeking Behavior (F(3,96)=1.32,p=0.27) nor Information Seeking Intention (F(3,96)=0.39,p=0.76). Therefore it can be assumed that the different conditions had no significant effect on Information Seeking in the study.

Testing of hypotheses

Three different hypotheses were tested in the study.

Hypothesis 1: According to Hypothesis 1, high social pressure will lead to higher levels of adherence. Because of this reason, participants in condition two and three should be motivated more to seek relevant information than participants in group one and four.

Although the groups were significantly different (F(3,95)=4,1,p=0,09), Hypothesis 1 can not be supported, because no main effect existed when both groups high on social pressure (2 and 3) were compared with the control groups (F(1,97)=0,02,p=0.88). No interaction effects were found. Based on these results, it can not be concluded that Social Pressure influences Individuals to seek risk relevant information in this study.

Hypothesis 2 states that a message high on involvement will create better adherence than a message low on involvement. Therefore, individuals in group one and two were expected to show a higher degree of adherence than participants in the other two groups.

In concordance with these expectations, a tendency to significance was found with two sided testing ($F(3,95)=4.098, p=0.09$). When a one-sided test is used, group one and two differ significantly from groups three and four on a 0,05 level. Therefore it can be concluded that adherence probability is higher in condition one ($M=3.36$) and two (3.24) than in group three ($M=2.78$) and four ($M=2.58$). According to these results, hypothesis 2 can be supported.

Hypothesis 3 assumes that high levels of involvement will lead to a high level of remembrance. Therefore, participants in group one and two were expected to remember more of the presented article and therefore perform better in the quiz than the other two groups. Contrary to this findings, however, no significant difference was found between the different conditions ($F(3,96)=1.51, p=0.22$). Therefore we can not conclude that involvement leads to better remembrance and can not support hypothesis three.

Perceived Knowledge. Perceived Knowledge was medium ($M=2.88$). No differences between the groups were found ($F(3,96)=1.12, p=0.35$. Therefore, we can conclude that the conditions did not differ in their perceived amount of knowledge. This is in concordance with the fact that no differences were found in quiz scores neither. Scores on the quiz did not differ between the conditions ($F(3,96)=1.52, p=0,22$. The mean score (M) was 9,84.

Discussion

The main purpose of this experiment was to study the influence of the factors Social Pressure and Involvement on Adherence Probability and the influence of the factor Involvement on Remembrance. To study the effect of these factors, different levels of both factors had to be created. A high level of social pressure was to be created through informing participants that general knowledge could be required in an interview for a job. In the low condition, by contrast, participants were given a tip concerning female behaviour in an interview for a job. Although the source was judged very understandable and credible throughout all conditions, no significant effect was found in creating social pressure. Different explanations can be given why the manipulation failed to create a significant difference in social pressure. The most probable one is that the manipulation was not strong enough. First of all, it is possible that the manipulation was not apparent enough for participants to recognize due to its position and/or size. Second, it could also be possible that the subject did not matter to participants sufficiently. Due to the fact that all participants in the experiment were students, it can be assumed that this was the case

because they either already possessed sufficient knowledge or did not perceive the subject as interesting for them at the moment. Due to these possibilities, it would have been useful to add items to assess participant's state of knowledge about job interviews as well as their current perception of its importance. The possibility that the tip about female behaviour in fact was not perceived as neutral by females can be ruled out due to the fact that no differences in social pressure existed between the genders within both low conditions.

Another, more general explanation could be that 72 per cent of participants were Psychology students and thus can be expected to have some prior experience in the construction of experiments. Although the credibility of the application tips was perceived very high, it is possible that respondents were able to identify the link between the tip that knowledge about H5N1 could be required in an interview for a job and the information provided about this topic in the second article. Possibly, this could have led to a lesser degree of experienced social pressure due to the fact they considered the information presented rather as a part of the experiment than as actual tips for an application. For that reason, it would have been useful to ask participants whether or not they had an idea about the purpose of the experiment at the end of the survey and to take this into consideration with regard to both manipulations.

To create high levels of involvement, participants were presented an article that informed them about the worldwide danger of *Influenza A* viruses and the H5N1 virus. In addition, they were shown a table of victims that came from the same province and were approximately the same age as the respondents. When a two-sided test was used, involvement had a tendency to significance to be higher in the high involvement conditions. When a one-sided test was used, however, involvement was significantly higher in the high involvement conditions (on a 0,05 level). An interesting finding was that both groups in the low involvement condition scored higher on involvement than expected: although it can not be assumed that one or more participants had a direct relation to the Asian continent, the majority in both groups stated to feel somewhat involved. With regard to Johnson's (2005) finding that involvement represents the personal importance, interest and significance of the risk topic to the individual it can be assumed that the low involvement conditions had a considerable influence on participant's perception of the risk. The most probable explanation for this outcome is that participants in the low involvement condition still felt threatened by the described situation. This could be due to participant's knowledge of prior cases of H5N1 in Europe or the understanding that the described virus hardly could be constricted to the Asian continent. Other possibilities could be that

participants felt threatened by indirect consequences of a pandemic on the Asian continent or that the high level of involvement resulted from compassion with the at-risk population. To make a reliable estimate of how and to what extend the two low involvement conditions did create involvement, it would have been helpful to add items that measure to what degree participants perceived a pandemic on the Asian continent to hold direct and indirect consequences for them. Other useful questions would have been to ask participants if they believed that a pandemic could actually be contained on one continent and in how far they felt compassionate with the at–risk-population. Contrary to the expectations, no higher degrees of information seeking behaviour or information seeking intention were created to in the two high involvement conditions. With regard to the fact that involvement was relatively high throughout the conditions, however, the results still are supported by the Elaboration Likelihood Model (Petty and Cacioppo, 1986). According to the model, individuals will elaborate information extensively via the so-called central route when involvement is high. Therefore we can conclude that this was the case in all four conditions.

As stated in the first hypothesis, messages high on social pressure were expected to create better adherence than messages low on social pressure. In the experiment, however, no significant difference between control group and experimental group was found. Therefore, the first hypothesis can not be supported. The most probable explanation for this outcome is that no significant differences in social pressure existed between the conditions. Therefore, no valid assumptions can be made about the influence of social pressure on adherence.

The second hypothesis stated that a message high on involvement will create better adherence than a message low on involvement. Because of the fact that adherence was significantly higher in the high involvement conditions than in the low involvement conditions, hypothesis two can be supported. Since involvement only was significant on a one-sided test, the same test was used to measure differences in adherence probability.

According to the third hypothesis, a message high on involvement will create a higher degree of remembrance than a message low on involvement. This hypothesis was not supported by the data. This poses a contrast to the work of Petty and Cacioppo (1981) and Eagly and Chaiken (1993). To explain these outcomes, a number of potential explanations need to be taken into account. First of all, it is important to consider the high degree of involvement in both groups. According to the authors named above, issues that are judged as personally relevant or important are likely to generate more systematic processing and

therefore can be expected to lead to better processing. Due to the fact that participants in all four conditions were found to be involved to a considerable degree, it is possible that all groups were sufficiently involved to process the given information systematically. Another possible explanation for these outcomes could be the limited discriminative validity of the test. It is possible that a longer and/or better constructed test could have measured the differences between the high and low involvement conditions more accurately. The finding that no between-group differences were found with regard to perceived knowledge indicates consistency between perceived and actual knowledge.

Conclusion

Based on the findings as well as on the shortcomings of this experiment, several propositions can be made regarding both the implementation and the focus of further research. With regard to our own inability to create social pressure, experimenters are advised to make sure that the manipulations they use are sufficient in strength, size and visibility. In addition, it should be assured that the subject matches participant's interest and that participant's possible experience with test construction does not interfere with the presented information. If the use of a pre-test is not possible due to the limited extend of the study, experimenters at least should add items to control for these factors. In case information about a large-scaled and potentially multidimensional risk is used for manipulation, it would also be beneficial to try to take into account all direct and indirect stakes participants have in the described situation to avoid unexpected effects. An interesting implication for research would be to identify different dimensions of involvement and to study their distinctive effects on adherence probability. For example, it would be interesting to study the different influence of direct and indirect involvement on adherence probability. Although hypothesis two could not be supported and no valid assumptions were made about the influence of social pressure on adherence probability, it does not mean that no significant influence can be found in future. Therefore, we encourage future researchers into this topic. With regard to the Elaboration Likelihood Model (Petty and Cacioppo, 1986) it would also be of interest to study if a kind of involvement threshold exists or if elaboration can increase further after the threshold to central processing is reached. Possibly, the effect of different dimensions of involvement on information processing could also be studied with regard to the model.

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Appendix 1: Low involvement

SOLLICITEREN EN DE EERSTE INDRUK: VIJF TIPS

De eerste indruk is ontzettend belangrijk. Je hebt maar één kans om een eerste indruk te maken. Doe het dus goed! Nobiles geeft je onderstaande tips:

1. De eerste indruk maak je met je sollicitatiebrief. Natuurlijk zorg je ervoor dat deze brief in intelligent en foutloos Nederlands is opgesteld.

2. Mensen kennen aan aantrekkelijke mensen allerlei positieve eigenschappen toe. Minder aantrekkelijke mensen moeten het – gechargeerd gesteld - doen met kwalificaties als lui, geniepig en dom. Het loont dus om er op je paasbest uit te zien. De uiterlijke aantrekkelijkheid speelt vooral een rol als kandidaat niet goed gekwalificeerd is. Zijn je kwalificaties goed tot uitstekend, dan speelt het uiterlijk geen rol.

3. Lichaamstaal is belangrijk. Het recht in de ogen kijken van gesprekspartners wordt gezien als een indicator van een sterk karakter. Veel gebaren, vrijuit spreken en een positieve gezichtsuitdrukking worden ook positief beoordeeld.

4. Pieker niet over de indruk die je maakt, maar richt je op de ander. Toon interesse, stel vragen. Dat wordt niet alleen gewaardeerd, je doet zo ook informatie op die je helpt beslissen of dit bedrijf bij je past.

5. Solliciteer je als vrouw voor een leidinggevende positie, dan word je geacht eigenschappen te laten zien die strijdig zijn met de eigenschappen die traditioneel aan vrouwen worden toebedacht. Aantrekkelijke vrouwen worden namelijk niet geschikt gevonden voor leidinggevende functies. Kleed je dus niet te aantrekkelijk en liefst zakelijk wanneer je solliciteert voor een management traineeship.

Appendix 2: High involvement

SOLLICITEREN EN DE EERSTE INDRUK: VIJF TIPS

De eerste indruk is ontzettend belangrijk. Je hebt maar één kans om een eerste indruk te maken. Doe het dus goed! Nobiles geeft je onderstaande tips:

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4. Pieker niet over de indruk die je maakt, maar richt je op de ander. Toon interesse, stel vragen. Dat wordt niet alleen gewaardeerd, je doet zo ook informatie op die je helpt beslissen of dit bedrijf bij je past.

5. Wees op de hoogte van actuele gebeurtenissen. Niet alleen interesse in de bedrijf, maar ook algemene interesse wordt op prijs gesteld. Vragen als "wie is de buitenminister van de VS" of "Waarom is die influenza A virus zo gevaarlijk" worden vaak gebruikt om algemene kennis te meten. Geef geen persoonlijke mening, maar alleen feiten.

Appendix 3:Low involvement

According to many experts, pandemic influenza (wereldwijde griep epidemie) today is the most significant global public health emergency caused by a naturally occurring pathogen.
Lacking a proof-reading mechanism, Influenza A viruses undergo constant stepwise changes in their genetic make-up. This so called antigenic drift enables the swapping of co infection with human and avian (pluimvee) influenza viruses. As this occurs, it will create a new "hybrid" virus that will be entirely or largely unfamiliar to the human immune system. If this new "hybrid" virus contains the right mix of genes, it can cause severe disease with an easy sustainable human-to-human transaction. This will ignite a pandemic. Pandemics are rare but recurring events, associated with great morbidity, significant mortality, and considerable social and economic disruption. Given the vulnerability of the population and the highly contagious nature of influenza viruses, all parts of the world can become rapidly infected.

Of all viruses in the vast avian influenza pool, H5N1 is of particular concern for human health for two reasons. First, H5N1, though strictly an avian pathogen, has a documented ability to pass directly from birds to humans. Second, once in humans, H5N1 causes severe disease with very high mortality. These two features combine to make H5N1 of concern for a third and greater reason: its potential to ignite an especially severe pandemic.
During 2004, large parts of Europe experienced unprecedented outbreaks of highly pathogenic avian influenza, caused by the H5N1 virus, in poultry (pluimvee). The confirmation of human cases gave the outbreaks a new dimension. They were now a health threat to populations in affected countries and, possibly, throughout the world. All prerequisites for the start of a pandemic had been met save one, namely the onset of efficient human-to-human transmission. Should the virus improve its transmissibility, everyone in the world would be vulnerable to infection by a

a pathogen - passed along by a cough or a sneeze - entirely foreign to the human immune system.

[...] The massive control efforts had an impact, and the outbreaks declined sharply during March except in Thailand, where sporadic outbreaks continued to be reported through April. Predictably, new human cases dwindled then ceased, with the last occurring in mid-March in Viet Nam. From January through March, Viet Nam and Thailand together reported 35 cases, of which 24 were fatal.

Table 1. Human cases, Viet Nam

First phase

No.	Sex	Age	Province	Onset	Outcome
1	female	25 years	Ha Nam	25.12.03	died 30.12.03
2	male	16 years	Ha Tay	29.12.03	died 11.01.04
3	female	21 years	Ha Tay	1.01.04	died 9.01.04
4	male	18 years	Ha Nam	23.12.03	died 8.01.04
5	female	8 years	Ha Nam	11.01.04	died 17.01.04
6	female	24 years	Ha Nam	13.01.04	recovered
7	male	13 years	Ho Chi Minh City	14.01.04	died 22.01.04
8	female	23 years	Thai Binh	10.01.04	died 23.01.04
9	female	30 years	Ha Nam	10.01.04	died 23.01.04
10	male	19 years	Ha Tay	11.01.04	recovered
11	female	20 years	Bac Giang	9.01.04	recovered
12	male	18 years	Ha Nam	25.01.04	died 2.02.04
13	female	16 years	Lam Dong	21.01.04	died 3.02.04
14	female	17 years	Ha Tay	12.01.04	died 27.01.04
15	female	27 years	Ha Tay	24.01.04	died 3.02.04
16	male	24 years	Thai Binh	29.01.04	died 3.02.04
17	male	23 years	Ha Nam	28.01.04	recovered
18	male	28 years	Ha Tay	29.01.04	died 9.02.04
19	male	22 years	Ha Nam	31.01.04	recovered
20	male	15 years	Tanh Hoa	9.02.04	recovered
21	male	4 years	Thai Binh	5.02.04	died 18.02.04
22	female	16 months	Ha Nam	14.02.04	recovered
23	male	21 years	Dong Nai	10.03.04	died 15.03.04

The H5N1 virus has given us not only a clear warning but time to enhance preparedness. During 2004, concern about the threat of a pandemic set in motion a number of activities, coordinated by WHO, that are leaving the world better prepared for the next pandemic.
[…] Further it is crucially important, that individuals comply with a wide range of medical(e.g. vaccinations) and non-medical interventions (personal hygiene, wearing masks and quarantine) that can potentially reduce opportunities for transmission at the start of a pandemic and slow international spread.

Appendix 4: High involvement

According to many experts, pandemic influenza (wereldwijde griep epidemie) today is the most significant global public health emergency caused by a naturally occurring pathogen.
Lacking a proof-reading mechanism, Influenza A viruses undergo constant stepwise changes in their genetic make-up. This so called antigenic drift enables the swapping of co infection with human and avian (pluimvee) influenza viruses. As this occurs, it will create a new "hybrid" virus that will be entirely or largely unfamiliar to the human immune system. If this new "hybrid" virus contains the right mix of genes, it can cause severe disease with an easy sustainable human-to-human transaction. This will ignite a pandemic. Pandemics are rare but recurring events, associated with great morbidity, significant mortality, and considerable social and economic disruption. Given the vulnerability of the population and the highly contagious nature of influenza viruses, all parts of the world can become rapidly infected.

Of all viruses in the vast avian influenza pool, H5N1 is of particular concern for human health for two reasons. First, H5N1, though strictly an avian pathogen, has a documented ability to pass directly from birds to humans. Second, once in humans, H5N1 causes severe disease with very high mortality. These two features combine to make H5N1 of concern for a third and greater reason: its potential to ignite an especially severe pandemic.
During 2004, large parts of Europe experienced unprecedented outbreaks of highly pathogenic avian influenza, caused by the H5N1 virus, in poultry (pluimvee). The confirmation of human cases gave the outbreaks a new dimension. They were now a health threat to populations in affected countries and, possibly, throughout the world. All prerequisites for the start of a pandemic had been met save one, namely the onset of efficient human-to-human transmission. Should the virus improve its transmissibility, everyone in the world would be vulnerable to infection by a pathogen – passed along by a cough or a sneeze – entirely foreign to the human immune system.

[...] The massive control efforts had an impact, and the outbreaks declined sharply during March except in France, where sporadic outbreaks continued to be reported through April. Predictably, new human cases dwindled then ceased, with the last occurring in mid-March in the Netherlands. From January through March, France and the Netherlands together reported 35 cases, of which 24 were fatal.

Table 1. Human cases, the Netherlands

First phase

No.	Sex	Age	Province	Onset	Outcome
1	female	25 years	Overijssel	25.12.03	died 30.12.03
2	male	16 years	Gelderland	29.12.03	died 11.01.04
3	female	21 years	Gelderland	1.01.04	died 9.01.04
4	male	18 years	Overijssel	23.12.03	died 8.01.04
5	female	8 years	Overijssel	11.01.04	died 17.01.04
6	female	24 years	Overijssel	13.01.04	recovered
7	male	13 years	Zeeland	14.01.04	died 22.01.04
8	female	23 years	Flevoland	10.01.04	died 23.01.04
9	female	30 years	Overijssel	10.01.04	died 23.01.04
10	male	19 years	Gelderland	11.01.04	recovered
11	female	20 years	Noord-Brabant	9.01.04	recovered
12	male	18 years	Overijssel	25.01.04	died 2.02.04
13	female	16 years	Groningen	21.01.04	died 3.02.04
14	female	17 years	Gelderland	12.01.04	died 27.01.04
15	female	27 years	Gelderland	24.01.04	died 3.02.04
16	male	24 years	Flevoland	29.01.04	died 3.02.04
17	male	23 years	Overijssel	28.01.04	recovered
18	male	28 years	Gelderland	29.01.04	died 9.02.04
19	male	22 years	Overijssel	31.01.04	recovered
20	male	15 years	Utrecht	9.02.04	recovered
21	male	4 years	Flevoland	5.02.04	died 18.02.04
22	female	16 months	Overijssel	14.02.04	recovered
23	male	21 years	Drenthe	10.03.04	died 15.03.04

The H5N1 virus has given us not only a clear warning but time to enhance preparedness. During 2004, concern about the threat of a pandemic set in motion a number of activities, coordinated by WHO, that are leaving the world better prepared for the next pandemic.
[…] Further it is crucially important, that individuals comply with a wide range of medical (e.g. vaccinations) and non-medical interventions (personal hygiene, wearing masks and quarantine) that can potentially reduce opportunities for transmission at the start of a pandemic and slow international spread.

Appendix 5: Demographics

1. Wat is uw geslacht?

- Man
- Vrouw

2. In welke instelling zit u?

- Utwente
- Saxion Hogeschool

andere, namelijk:

3. Welke opleiding volgt u?

- PSY
- TCW
- EDMM

andere, namelijk:

4. Wat is uw nationaliteit?

- Nederlands
- Duits

andere, namelijk:

5. In welke provincie woont u?

- Overijssel

andere, namelijk:

6. Wat is uw leeftijd?

Appendix 6: link choice

1. Zou u nu de keuze willen maken tussen 1 van de 4 sites hieronder? Dit kunt u doen door erop te klikken!

- http://www.cdc.gov/flu/protect/antiviral/
- http://www.who.int/csr/disease/influenza
- www.kiesjestudie.nl
- www.rtl.nl/reality/beautyendenerd/

Appendix 7: Questionnaire

1. U hebt net een artikel over de gevaren van H5N1 gelezen. Geef nu aan, in hoeverre u eens bent met volgende stellingen:

	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
Ik voel me betrokken bij dit risico	☐ Helemaal niet	☐ Nauwelijks	☐ Enigszins	☐ Nogal	☐ Heel erg
Ik vind het belangrijk informatie te hebben over het desbetreffende risico	Helemaal niet ☐	Nauwelijks ☐	Enigszins ☐	Nogal ☐	Heel erg ☐
Ik ben geïnteresseerd in de gevolgen van H5N1	Helemaal niet	☐ Nauwelijks	☐ Enigszins	☐ Nogal	☐ Heel erg

2. Hoe ernstig zullen de gevolgen van een pandemie zoals beschreven voor u zijn?

	Helemaal niet ernstig	Niet echt ernstig	Enigszins ernstig	Nogal ernstig	Zeer ernstig
Als er een Pandemie zoals in het artikel uitbreekt, zijn de gevolgen voor mij	☐ Helemaal niet ernstig	☐ Niet echt ernstig	☐ Enigszins ernstig	☐ Nogal ernstig	☐ Zeer ernstig

3. Hoe denkt u, dat mensen die belangrijk voor u zijn met informatie over pandemieën omgaan?In hoeverre bent u eens met de volgende stellingen?

	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
Mensen in mijn omgeving vinden dat ik op de hoogte moet zijn van risico's als H5N1.	☐ Helemaal niet	☐ Nauwelijks	☐ Enigszins	☐ Nogal	☐ Heel erg
Er word van mij verwacht dat ik wat weet over dit onderwerp.	☐ Helemaal niet	☐ Nauwelijks	☐ Enigszins	☐ Nogal	☐ Heel erg
In het algemeen ben ik geneigd om te doen wat andere van mij verwachten.	☐ Helemaal niet	☐ Nauwelijks	☐ Enigszins	☐ Nogal	☐ Heel erg
De mening van mensen om mij heen is belangrijk voor mij.	☐ Helemaal niet	☐ Nauwelijks	☐ Enigszins	☐ Nogal	☐ Heel erg

4. Wanneer ik lees over een pandemie als beschreven in het artikel, dan

	Zeer klein	Nogal klein	Niet klein/niet groot	Nogal groot	Zeer groot
Is de kans dat ik voorzorgmaatregelen neem	☐ Zeer klein	☐ Nogal klein	☐ Niet klein/niet groot	☐ Nogal groot	☐ Zeer groot
Is de kans dat ik gegeven instructies opvolg	Zeer klein ☐	Nogal klein ☐	Niet klein/niet groot ☐	Nogal groot ☐	Zeer groot ☐
Is de kans dat ik informatie zoek over	☐ Zeer klein	☐ Nogal klein	☐ Niet	☐ Nogal	☐ Zeer groot

	Zeer klein	Nogal klein	Niet klein/niet groot	Nogal groot	Zeer groot
dit onderwerp			klein/niet groot	groot	
Is de kans dat ik informatie over dergelijke risico's in de gaten houd	Zeer klein	Nogal klein	Niet klein/niet groot	Nogal groot	Zeer groot

5. Hoe BEGRIJPELIJK vond u

	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
de sollicitatie tips	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
het WHO artikel	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg

6. Hoe GELOOFWAARDIG vond u

	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
de sollicitatie tips	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
het WHO artikel	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg

7. Tenslotte zouden wij graag van U willen weten hoeveel KENNIS u denkt te hebben over het gelezen artikel.

	Zeer weinig	Weinig	Enigszins	Veel	Zeer veel
De hoeveelheid kennis die ik heb over het gelezen artikel is	Zeer weinig	Weinig	Enigszins	Veel	Zeer veel

Appendix 8: Quiz. (high involvement)

1. Pandemic influenza today is the most significant global public health emergency caused by a naturally occurring pathogen.
2. There were 38 cases, of which 25 were fatal.
3. The most outbreaks were in Overijssel and Gelderland.
4. H5N1 has a strong proof-reading mechanism.
5. H5N1 is not yet transmissible from human to human.
6. H5N1 is not a strictly avian pathogen.
7. Antigenic drift is de transaction from avian pathogens on humans.
8. All prerequisites for the start of a pandemic have been met in France and the Netherlands.
9. Pandemics are associated with considerable social and economic disruption.
10. All influenza viruses are "hybrids".
11. Vaccination, wearing masks and personal Hygiene can potentially reduce opportunities for transmission. 12. Wearing masks and providing masks are both medical interventions.
13. The most victims were in Thailand.
14. Human to human transaction is the reason for genetic drift.
15. The WHO coordinates the preparation for the next pandemic.

Appendix 9: Quiz (low involvement)

1. Pandemic influenza today is the most significant global public health emergency caused by a naturally occurring pathogen.

2. There were 38 cases, of which 25 were fatal.
3. The most outbreaks were in Ha Nam and Ha Tay.
4. H5N1 has a strong proof-reading mechanism.
5. H5N1 is not yet transmissible from human to human.
6. H5N1 is not a strictly avian pathogen.
7. Antigenic drift is de transaction from avian pathogens on humans.
8. All prerequisites for the start of a pandemic have been met in Thailand and Viet Nam.
9. Pandemics are associated with considerable social and economic disruption.
10. All influenza viruses are “hybrids”.
11. Vaccination, wearing masks and personal Hygiene can potentially reduce opportunities for transmission. 12. Wearing masks and providing masks are both medical interventions.
13. The most victims were in Thailand.
14. Human to human transaction is the reason for genetic drift.
15. The WHO coordinates the preparation for the next pandemic.