The Effect of Group Identification, Argument Strength and Information Focus on Social

Influence

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Abstract

Social influence is one of the most significant areas of social psychology and an integral part of everyday life which informs our actions and decision making. Yet why does social influence take place? A variety of theories have attempted to explain this phenomenon. An integrative model of the social influence process has been suggested by Spears (2021) providing a model displaying the three general domains of influence which looks at whether the self is involved (self-focus), as well as the different levels at which the self is involved (personal vs group). The present experimental study investigated the effects of group identification, argument strength and information focus on social influence. It included 214 participants from the University of Groningen (74.8% female, 24.9% male) who were assigned to four different experimental conditions: strong or weak arguments, informational focus or absence of informational focus, as well as group identification and need for cognition that were used as moderators. Participants were then asked to give their opinion on a new software program following arguments made by other students and their thoughts on hiring a new lecturer to the university. Participants that were high in identification were more influenced than participants that were low in identification. No effects were found for argument strength, information salience, the interaction between argument strength and information focus, and for the three-way interaction between argument strength, information focus and identification. Results show that group identification may have a bigger impact than we would expect on social influence.

Keywords: *Social influence, informational influence, normative influence, group influence, group identification.*

The effect of Group Identification, Argument Strength and Information Focus on Social Influence

The degree to which people are influenced differs dramatically from one individual to another. Social influence is defined as when an individual's thoughts, attitudes, beliefs or behaviours are changed by the actions of another person (Cialdini & Griskevicius, 2010). In fact, a lot of research has strived to understand the nature and mechanisms of social influence because it is so prevalent in people's daily life. Moreover, research has shown that social influence can depend on many factors and processes making it multifaceted, which has been addressed in many theories and hypotheses. In this research, we aim to shed light on the processes that take place during social influence, specifically looking at group identity and argument strength. In order to do so, we will look at several relevant theories of social influence.

One of the most influential theories is the Dual Process model by Deutsch and Gerard (1955), which discriminates between normative influence and informational influence. Normative influence can be explained as conforming to a social norm to gain rewards or avoid punishments. For example, this could be focusing on the source of the influence such as a person giving arguments, like friends or members of a group, and accepting an ingroup's ideas to be approved by them or to avoid social disapproval. Informational influence on the other hand, can be defined as being influenced by the contents of an argument, which does not address any need to belong (Deutsch & Gerard, 1955), as the way normative influence does.

The authors of this model believed that informational influence lasted in the long-term. This concept was reinforced by the Elaboration Likelihood Model (Petty et al., 1986) that

perceived informational influence as more central route processing whereas the source of influence as more peripheral route processing or was associated to less analysis of the arguments, presenting a more superficial evaluation.

Social influence is an important concept, but how does it relate to group identity? Researchers have attempted to explain social influence by looking at the mechanisms of group related interpretations (Turner et al., 1987). For instance, the Self-Categorisation Theory explains that identification with the in-group presents a depersonalisation of the self-perception, where individuals stereotype themselves in the same fashion as other in-group members, which is called individual self-stereotyping. Self-stereotyping can also happen in the manner where an individual considers themselves akin to their in-group members. This was demonstrated in a study showing that when people were included as an in-group member, they would see themselves more alike to the other members of their in-group. These feelings of inclusion within the in-group would incite individual self-stereotyping, leading individuals to share emotions and feelings with their ingroup's successes and failures (Lewin, 1948; Tajfel, 1978).

An important constituent of the identification with the ingroup is the extent to which individuals see themselves having common characteristics with the prototypical member of the in-group (Spears et al., 1997). Although the theory of self-categorisation can explain how social influence can occur within a group, it regards the group as being part of an individual's perceived self. This means that any arguments or information presented to them will be seen through the perspective of the identity of the in-group, and will therefore have more long-lasting effects on persuasion. This is referred to as referent informational influence whereby, through self-categorisation, an individual conforms to an in-group norm that is polarised (Turner et al., 1989). Polarisation can be defined as when the opinions of a likeminded group of people are

reinforced by each other's and where the opinions of the in-group are strengthened or can even become more extreme as the process takes place. An example of referent informational influence can be found in the Social Conformity Paradigm of Asch, also referred to as the Asch experiment (Asch et al., 1956) where a participant alongside five confederates were asked which line out of the three lines presented was the longest. All of the confederates would eventually answer in one of the trials that one of the shorter lines was the longest. The results showed that over 12 trials, about 75% of participants conformed at least once to the majority norm of the in-group which was in-fact, the incorrect answer. This shows how normative influence can have a drastically heavy impact on individuals, even when they are aware that they are completely wrong. Turner later reinterpreted the Asch effects in terms of referent informational influence. However, there was also evidence that participants continued to be influenced when their responses were private, showing that true influence was also occurring. This leads us to the following hypotheses:

Hypothesis 1: Strong arguments will have a stronger effect on social influence than weaker arguments.

Hypothesis 2: In general, when group identity is made salient, people will be more strongly influenced by information emanating from this group than when group identity is not made salient.

Nevertheless, daily life situations are often complex and rarely occur with only very few processes. To address this, it is important to look at a broad model that is able to capture this dynamic interaction of social influence processes and mechanisms. The three-realm integrative model of social influence by Spears (Spears, 2021) explains three general domains of influence defined the manner in which individuals display a concentration on the self in the process of social influence. To be precise, the various levels of the self that are involved (the personal

versus group on the horizontal axis) and whether the self is involved (the self-focus situated on the vertical axis). This model shows which factors are more predominant in various contexts, forming a more integrative representation of different social influence processes.

When one's focus not directed to the self, the individual is oriented in the other/outward focus or the informational domain where informational influence occurs (Deutsch & Gerard, 1955). Informational influence is the process where someone is influenced by the contents of a message. This process is based on information-processing skills and problem-solving abilities (Spears, 2021). It is thought that true influence takes place during informational influence as new information is grasped and assimilated by the individual. Other research on persuasion would also agree on this process, adding that the dominant predictor of social influence is the outward realm, such as the strength of an argument for example. When an individual's focus is on the outward focus, they are more prone to be receptive to objective and the contents of a message such as the strength of an argument.

The way people process arguments depends on their individual differences. One of these differences is the need for cognition, which is "a need to structure relevant situations in meaningful, integrated ways" (Cohen et al., 1955, p. 291). It is a need to understand and make reasonable the experimental world (Cohen et al., 1955, p. 291). It can be characterised as individuals that enjoy the act of thinking (Murphy, 1947), or even a "need to understand" (Katz, 1960, p.170). He also added that certain attitudes evolve due to their referents frustrate or satisfy this need for specific individuals. The consequential tension would result in "active efforts to structure the situation and increase understanding" (Cohen et al., 1955, p. 291). In this study, the manipulation of information focus provides an experimental manipulation to affect informational influence. The need for cognition is perceived as an individual difference variable that affects

informational influence in a comparable way. Therefore, individuals with a high need for cognition, or a heightened need to understand, will have an increased level of attention and process relevant stimuli in a meaningful way. For this matter, this is why we hypothesise that:

Hypothesis 3: People with that are high in information salience will be more influenced by stronger arguments than weaker ones.

We could also argue that the effect of group influence will be more prominent when the information focus is less salient, giving place to the following:

Hypothesis 4: The effect of group identity will be stronger when the information focus is less salient.

Method

Participants and Design

In total the research consisted of 224 participants from the University of Groningen. The research consisted of 74.8% female students and 24.9% male students. Furthermore, there were 56.1% national and 43.9% international students. The RUG ethics committee approved the study before it was activated online. The SONA system is used for first-year psychology students, who are required to collect a certain number of SONA-credits to progress in their study. SONA is an online system which displays the relevant information to the participants in English. It is accessible on different devices and only requires a working internet connection, meaning it can be used independent of location. Participants who completed the study were rewarded 0.6 SONA-credits.

A 2 ("argument strength": strong vs weak; between) x 2 ("informational focus": yes vs no; between) participants design was used. Furthermore, group identity and need for cognition were used as additional (continuous) moderators. Participants gave their consent in taking part in the study. A random sampling procedure was utilised to assign the participants to one of four conditions. After filling in the questionnaire the participants were debriefed about the real purpose of the research.

Before conducting the main study, a pilot study was used to explore different aspects of various arguments about the new website. Participants were asked to rate arguments on two seven-point Likert-scales concerning believability and argument strength. They were also asked to provide feedback to the provided cover story for the 'New Nestor' task. The results from the pilot study were utilised to select the arguments used in the main study. See appendix 1 for further details.

Procedure and Materials

The study itself was designed using Qualtrics online questionnaire software (www.qualtrics.com), whereby participants were guided to a research-specific Qualtrics URL from the SONA-systems site. The "Randomiser" function of Qualtrics was used, resulting in a random distribution of the participants among all conditions. Participants were expected to complete two tasks; the 'New Nestor' task and the 'Job selection' task. In the 'New Nestor' task students were asked to give their opinion on a new software program following arguments made by other students, to measure social influence. In the 'Job selection' task students were asked to give their opinion on hiring a new lecturer for the university, to prime informational focus.

Group identity scale

At the beginning of the survey, participants were asked about how they viewed themself as a psychology student. They answered fourteen questions on a Likert scale with seven levels (Leach et al., 2008) ranging from strongly disagree to strongly agree. An example of an item is: 'It is pleasant to be a RUG psychology student' (see appendix 1). The reliability of the scale was $\alpha = 0.85$. Next, the participants were divided into one of four conditions. The first condition consisted of strong arguments where informational focus was primed, and the second condition consisted of weak arguments where informational focus was primed. In the third condition, participants were presented with strong arguments and were not primed with informational focus, whereas in the last condition, participants were presented with weak arguments and were primed with informational focus.

Need for Cognition scale (manipulated as information focus)

When informational focus was primed, the need for cognition scale and 'Job Selection' task were in front of the 'New Nestor' task. It was the other way around when informational focus was not primed. The need for cognition scale (Cacioppo, Petty, & Kao, 1984) consisted of eighteen five-point Likert scale questions ranging from strongly extremely uncharacteristic to extremely characteristic. An example of a statement is: 'I would prefer complex to simple problems' (see appendix 1). The reliability of the scale is $\alpha = .74$.

Job Selection task

Following the Need for Cognition scale, the participants were shown the 'Job Selection' task. This part was added to prime informational focus. In this task, participants had to read summaries consisting reference letters of two job candidates. Subsequently, the participants had to answer three seven-point Likert scale questions ranging from extremely unlikely to extremely

likely about how likeable and qualified each candidate is, and which candidate they thought would be most suited for the job (see appendix 1).

New Nestor task

Next up, the 'New Nestor' task designed to asses social influence was being presented to the participants. As the main part of the experiment, this task measured the degree to which participants were being persuaded by the arguments presented. Firstly, the participants had to read the cover story, which stated that an alternative to Nestor was being trialed with a potential perspective to being implemented. The cover story mentions two different tasks the participants had to complete. Following the story, the students were shown three strong or three weak arguments. These arguments that were allegedly given by psychology students. Afterwards, the participants were asked to give their opinion on whether they prefer the new software to Nestor. They answered ten questions on a seven-points Likert-scale ranging from strongly disagree to strongly agree. An example of a statement was: 'I think this new software will make the site easier to use.' See appendix 1 for the cover story, the arguments and the scale.

Results

Participants and Data

A quasi-experimental research design of a sample of 224 participants from the University of Groningen was used. Some participants were excluded from the research, due to not finishing the survey. The size of the dropout was 10 participants (4%), leaving 214 usable participants for our research.

Manipulation Checks

In order to perform an ANOVA test, we needed to check several assumptions. The assumption of linearity was held as a normal distribution on the Q-Q plot was observed for each dependent variable. The assumption of normality also was held as the Shapiro-Wilk's test showed insignificant results for all the dependent variables. Using several boxplots, 5 outliers were found violating the assumption of outliers. Levene' test was significant, violating the assumption of homogeneity of variance across groups ($p <.001$).

Main Analysis

Table 1 (shown in appendix 2) shows the performed univariate analysis of variance. Argument strength did not show a statistically significant main effect on social influence ($F =$ 1.520, $p = 0.219$). Therefore hypothesis 1 is not statistically supported. There is no evidence that strong arguments have a stronger effect on social influence than weaker arguments. However, the mean difference is in the right direction where the mean of low argument strength 4,697 ($SE = 0.081$) was lower than the mean for high argument strength 4,852 ($SE = 0.081$).

There was no statistically significant two-way interaction effect involving information salience and argument strength on influence ($F = 0,837, p = 0,361$). Our second hypothesis: individuals with a high informational focus will be more influenced by strong arguments is, therefore, not supported.

Additionally, group identification has a strong and significant moderating effect on influence ($F = 9.983, p = 0.002$). This supports hypothesis 3, that arguments coming from the in-group will have a stronger effect on social influence than coming from the out-group. Additionally, using a median split (where we divided the low identifiers and the high identifiers

into two groups above and below the median), we were able to study the direction of the effect of identification. Namely, that high identifiers are more influenced than low identifiers.

Information salience did not show a statistically significant main effect ($F = 0.086$, $p = 0.770$). There was no significant difference between the means of information salience: low informational salience had a mean of 4,781 ($SE = 0,081$) and high information salience had a mean of 4,768 ($SE = 0,081$). There is no evidence that the effects of group influence will be stronger when the information focus is less salient and thus, hypothesis 4 (group identity will be more prominent when the information focus is lower in salience) is not supported.

A three-way interaction involving informational salience, argument strength and degree of identification did not have a statistically significant effect on social influence, but is marginally significant ($F = 3.636$, $p = 0.058$). Therefore, there is no evidence that high degree of identification, high information salience and strong arguments high give rise to higher social influence.
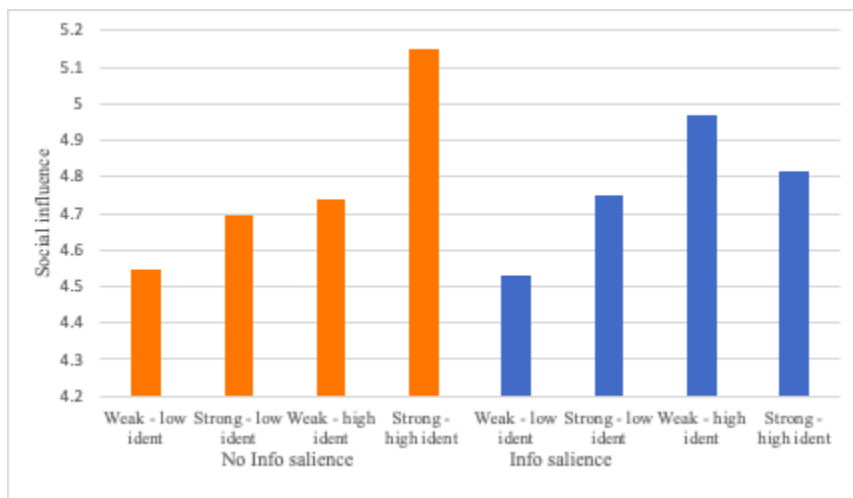
Figure 1: Interaction effect of group identification, argument strength, and information salience on social influence (scale from 0-7).

An explanation of the figure above: the 4 orange bars on the left are the no information salience conditions and the 4 bars on the right in blue are the information salience conditions. In all cases, it was found that social influence was higher in the stronger argument condition than in the weaker argument condition, as predicted. This is in line with our first hypothesis, the more people identify with a group, the higher the influence and therefore arguments coming from the ingroup will have stronger effects that arguments emanating from the outgroup. However, there is an exception for the information salience and high identification condition where the effect is reversed: influence was lower for the stronger argument and higher for the stronger argument condition. Generally, participants that were higher in identification were more influenced than participants that were low in identification.

Discussion

Firstly, when looking at the Dual Process model (Deutsch & Gerard, 1955), informational influence occurs when the contents of a message are what influence an individual. In this way, we would expect that argument strength would be a defining factor in the process of influencing an individual. This was not in line with our findings as there was no evidence for stronger arguments giving rise to higher social influence (H1). This is also opposed to the Elaboration Likelihood model (Petty et al., 1986), where informational influence results in a higher analysis of arguments. In turn, this deepened investigation of the argument should lead to higher influence, which is not what the outcomes of this study revealed. Although there was no evidence for this effect, the means were in the predicted direction and hence, the non-significance could be attributed to the lack of power in the study. Additionally, the non-

significance could also be due to the arguments being longer, leading individuals to have more content to scrutinise and thus, increasing the likelihood that the arguments will be less influential.

Another interesting process is the way individuals process arguments depends on their need for cognition, which is referred as informational focus. This effect was not found in our study as people with high information focus were not found to be more influenced by stronger arguments than weaker ones (H2). This also does not go in line with our predictions where it was expected that as people in a higher information focus condition, would engage in a more thorough interpretation of the information presented and therefore be more influenced by arguments that were stronger. This effect could be explained as individuals that were in the condition where information focus was at the beginning of the survey, as suggested by the direction of the means, would engage in a deepened analysis of what was presented to them and therefore, be less influenced as a result, as suggested by the direction of the means.

However, conformity to the in-group rose through the process of self-categorisation. We found that people that were high in identification were more influenced than those low in identification (H3). This makes sense as high identifiers see themselves as being similar to the group from which the argument is stemming, as well as perceiving the group as part of their self-identity. Hence, the arguments are perceived as a more reliable and more influential. This is also similar to findings of the Asch experiment (Asch et al., 1956), as the opinions of likeminded people are usually strengthened. However, we found no evidence that when information focus is less salient, the effects of group influence will be stronger (H4). This could be explained by the interaction between informational focus and group influence being more complex than we would

imagine. We would therefore have to engage in further research to understand this better understand this relationship.

In addition to this, a three-way interaction between all the variables (argument strength, information salience and group identification) was very close to being significant. Due to this, we could interpret the findings, but without assigning any theoretical or practical value to it. We could explain these findings as only when the combination of all 3 factors is present, that is, when people are high in information salience, highly identify with their ingroup, and are presented with strong arguments, they are most likely to be influenced. Therefore, we could say that influence is at its highest when all three variables are present. However, when information salience or argument strength are isolated, they do not significantly affect the degree of influence.

Our findings suggest that the group identification may play an important role when influencing people. In fact, the more someone identifies with their in-group, the more they will be influenced by the contents of the messages coming from within their group. This goes in line with the fact that people tend to follow a group's decision, even when they consciously know they are wrong doing so (Asch et al., 1956). This demonstrates the effects of group influence.

The results of our study could be applied into the world of advertisement where companies could use the effects of identification to strengthen their influence onto consumers. In fact, sellers could increase the degree to which people identify with their company by portraying qualities that enable the consumer to identity with them. This would in turn, lead the consumer to be more influenced by the arguments presented in the advertisement, and therefore, be more likely to agree with what has been presented to them or even, purchase the item presented. As well as the realm of advertisement, I believe our results could impact the world of politics,

making people more inclined to be influenced by the contents of a message from people they identify the most with. The 2016 US-presidential Elections provide proof about the powerful effects social influence can have on individuals (X. Zheng et al., 2021).

One of the benefits of this study is that we were able to study a selected sample of psychology students at Rug, thus making our findings applicable to this specific population. Although most of the results of our study are non-significant, the lack of evidence for most of our hypotheses gives room for potential alternative explanations to why our predictions were not supported. Which factors could be altered to increase social influence? Are these findings replicable? These questions leave room for future research. As well as this, the overall reliability of the group identity scale ($\alpha = 0.85$) as well as for the information focus scale ($\alpha = .74$) were relatively high, demonstrating a correct measurement procedure.

Several limitations have come up during this research. First of all, the power for this research study was low (67%). This could explain why most of the effects found in this study were insignificant (H1, H2 and H4). With higher power, both argument strength (H1) and information focus (H2) could have the potential to significantly affect degree of influence. Furthermore, the allocation of participants for the identification condition (where the participants were asked about their degree of identification at the end of the study) were marginally unbalanced as there were 102 participants for the no identification condition and 112 participants for the identification condition (where the participants were asked about their degree of identification in the beginning of the study). Additionally, the results showed the presence of 5 outliers and there was no homogeneity of the variables. As previously mentioned, the majority of our predictions were not found as there was not enough evidence for most our hypotheses (H1, H2 and H3). This could be attributed to low power, the size of the sample (214 participants) and

the lack of homogeneity among the variables. Finally, because we used the first-year SONA participation pool, a large proportion of our participants were female (74.8%), suggesting further studies should explore whether these findings are applicable to a more representative sample of psychology students at Rug.

Despite these limitations, this is one of the first experimental studies that tested the effects of argument strength, in-group identification and information salience on social influence on psychology students. Overall, people that identified the most with the group of psychology students at Rug, were the most influenced by the arguments emanating from that group. This suggests that identification could have a bigger impact than we would expect with regards to social influence. It would be beneficial to investigate, through future research, to what degree can social influence be increased solely by enhancing group identification, and to look at the longitudinal effects of this influence.

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Appendix 1

Qualtrics survey

(Study Information document being displayed)

As mentioned on the information page, we think it is important that you are informed well before you participate in this study. We therefore ask you to respond below, in which you can give permission to participate in the study as described on the previous web page. If you consent to participate, you can continue to read the instructions for the questionnaire on the following screens.

"I have read the information about the research. I have had enough opportunity to ask questions about it.

I understand what the research is about, what is being asked of me, what consequences participation can have, how my data will be handled, and what my rights as a participant are.

I understand that participation in the research is voluntary. I myself choose to participate. I can stop participating at any moment. If I stop, I do not need to explain why. Stopping will have no negative consequences for me. Below I indicate what I am consenting to:"

If you consent, click on yes below. If not, simply exit the study.

Consent to participate in this research?

- Yes, I consent to participate

As a participant, you have the right to a copy of this consent form. You can create a copy by taking a screenshot, using your (smartphone) camera or the Print Screen button on your computer.

Now we would like to ask your opinion about how you see yourself as a psychology student at the Rijksuniversiteit Groningen (RUG) and how you feel about your fellow psychology students.

1. I feel a bond with psychologists. (answers ranging on a 7-point Likert scale with the labels: ''Strongly disagree'', ''Disagree'', ''Somewhat disagree'', ''Neither agree nor disagree'', ''Somewhat agree'', ''Agree'', ''Strongly agree'' from left to right). The scale was the same for all items.

2. I feel solidarity with RUG psychologists.

3. I feel committed to RUG psychologists.

4. I am glad to be a RUG psychologist.

5. I think that RUG psychologists have a lot to be proud of.

6. It is pleasant to be a RUG psychologist.

7. Being a RUG psychologist gives me a good feeling.

8. I often think about the fact that I am a RUG psychologist.

9. The fact that I am a RUG psychologist is an important part of my identity.

10. Being a RUG psychologist is an important part of how I see myself.

11. I have a lot in common with the average RUG psychologist.

12. I am similar to the average RUG psychologist.

13. RUG psychologists have a lot in common with each other.

14. RUG psychologists are very similar to each other.

In the following section we would like to find out about your evaluative and critical thinking abilities. First, we would like to directly ask you about those critical and evaluative skills, and then on a second task, we are going to put those skills to the test. Rate how (un)characteristic each statement is of you.

1. I would prefer complex to simple problems. (answers ranging on a 5-point Likert scale with the labels: ''Extremely uncharacteristic'', ''Somewhat uncharacteristic'', ''Uncertain'', ''Somewhat characteristic'', ''Extremely characteristic'' from left to right). The scale was the same for all items.

2. I like to have the responsibility of handling a situation that requires a lot of thinking.

3. Thinking is not my idea of fun.

4. I would rather do something that requires little thought than something that is sure to challenge my thinking abilities.

5. I try to anticipate and avoid situations where there is likely a chance, I will have to think in depth about something.

6. I find satisfaction in deliberating hard and for long hours.

7. I only think as hard as I have to.

8. I prefer to think about small, daily projects to long-term ones.

9. I like tasks that require little thought once I've learned them.

10. The idea of relying on thought to make my way to the top appeals to me.

11. I really enjoy a task that involves coming up with new solutions to problems.

12. Learning new ways to think doesn't excite me very much.

13. I prefer my life to be filled with puzzles that I must solve.

14. The notion of thinking abstractly is appealing to me.

15. I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.

16. I feel relief rather than satisfaction completing a task that required a lot of mental effort.

17. It's enough for me that something gets the job done; I don't care how or why it works.

18. I usually end up deliberating about issues even when they do not affect me personally.

Appendix 2

Table 1: Univariate ANOVA of all relevant variables and the resulting main effects and interactions on social influence

Tests of Between-Subjects Effects					
Dependent Variable: Influence					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	18.921[a]	15	1.261	1.874	.028
Intercept	4402.099	1	4402.099	6540.453	<.001
InfoSal	.058	1	.058	.086	.770
ArgWvsS	1.023	1	1.023	1.520	.219
IdentCent	6.719	1	6.719	9.983	.002
InfoSal * ArgWvsS	.563	1	.563	.837	.361
InfoSal * IdentCent	.186	1	.186	.276	.600
ArgWvsS * IdentCent	.094	1	.094	.139	.709
InfoSal * ArgWvsS * IdentCent	2.447	1	2.447	3.636	.058
Error	133.265	198	.673		
Total	5037.730	214			
Corrected Total	152.187	213			
a. R Squared = .124 (Adjusted R Squared = .058)					

Appendix 3

Pilot study

Questionnaire:

For our research on social influence, we developed an introduction and arguments. We will ask you whether the introduction is believable and if you have any notes on how we could improve it. We would also like to ask you to rate these arguments on how convincing they are as well as how credible you think these arguments are.

Proposed introduction (referred to as "Cover story" below):

A software development Company NEXA has recently developed a new software system specifically for universities. The RUG is considering to replace the Student Portal (Nestor) next year with a new website called StudyUI. Through a survey that we conducted, we discovered that a high percentage of students were dissatisfied with Nestor. This has negatively impacted the student ratings of the University of Groningen. Due to the high dissatisfaction rate, the university has been looking into alternative software systems. However, this new website will have a lot of transition and other costs associated with the implementation. The university has enlisted a bachelor student group to examine students' thoughts on this new software (as they have close affinity with the concerns of other students). The goal of the following questions is to discover whether the new website is preferred over the old website. Some of the differences between Student Portal and StudyUI are a difference in layout, colours, technology, and an additional bar and a StudyUI app that can be accessed on your phone and tablet. The app has a replacement with a built-in authenticator and schedule that is generated on its own. Psychology students were

generally in favour, however economic students were more skeptical as they were concerned

with the costs of the new software.

Q1a: How believable is the cover story? (1 = Not at all believable, 7 = Very believable)

1   2   3   4   5   6   7

   Some students have already used the new website. Psychology students have tested some of the

new features. Here are some of their opinions about StudyUI:

Q2: We are interested in whether these arguments come across as convincing (i.e., would

they convince you to try the new website?).

How strong/convincing are the following arguments? (1 = Weak/Not at all convincing, 7 =

Very strong/convincing)

1. "The website can be accessed through a phone application, so I can look at my grades and my

emails in my free time."

Very weak   1   2   3   4   5   6   7   Very strong

2. "StudyUI can be accessed through a phone application, enabling students to look at their

grades, courses and emails anywhere at any time which increases their accessibility and ensures

that I have a backup."

3. "The colour palette is well thought out because it helps me focus on the important

information."

4. "I enjoy the new layout as it is different from the previous one, I was using."

5. "I heard a rumour that the software is cheaper to maintain which means we can all have a free

beer by the end of the year."

6. "The Website uses the latest software meaning it runs smoothly on my platforms (Mac, PC,

desktop, laptop)."

7. "The schedule is automatically updated according to my enrolments meaning I will never miss

classes due to my schedule ever again."

8. "Innovation is the future, and new is better, so why not try it out?"

9. "The authenticator is included in the application and I do not need another device to log in."

10. "I think the search bar looks more sophisticated, but more importantly, it helps me as a

student to find information quicker."

11. "In my opinion, the new search bar looks more professional and cleaner."

12. "The website is up to date and new, which I think is always a pleasant thing to have."

13. "I think the website has a better design and functionality, as well as being more organised

and helps me find information more easily."

14. "I like the colours of StudyUI, because these are my favourite colours."

Q3: We are interested in whether these arguments come across as credible (i.e., something you could imagine a student might say). How credible (realistic) is this argument? (1 = Not credible at all, 7 = Very)

1. "The website can be accessed through a phone application, so I can look at my grades and my emails in my free time."

Not credible   1   2   3   4   5   6   7   Very credible

2. "StudyUI can be accessed through a phone application, enabling students to look at their grades, courses and emails anywhere at any time which increases their accessibility and ensures that I have a backup."

3. "The colour palette is well thought out because it helps me focus on the important information."

4. "I enjoy the new layout as it is different from the previous one, I was using."

5. "I heard a rumour that the software is cheaper to maintain which means we can all have a free beer by the end of the year."

6. "The Website uses the latest software meaning it runs smoothly on my platforms (Mac, PC, desktop, laptop)."

7. "The schedule is automatically updated according to my enrolments meaning I will never miss classes due to my schedule ever again."

8. "Innovation is the future, and new is better, so why not try it out?"

9. "The authenticator is included in the application and I do not need another device to log in."

10. "I think the search bar looks more sophisticated, but more importantly, it helps me as a student to find information quicker."

11. "In my opinion, the new search bar looks more professional and cleaner."

12. "The website is up to date and new, which I think is always a pleasant thing to have."

13. "I think the website has a better design and functionality, as well as being more organised and helps me find information more easily."

14. "I like the colours of StudyUI, because these are my favourite colours."

Out of these fourteen arguments we firstly removed the arguments with a low credibility. After that, we selected the three strongest and three weakest arguments to use in our main research.