

Informational Influence, Group Identity and their role in Social Influence

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Abstract

People are influenced by other people every day. The source of information and the message itself are both important aspects of social influence. This paper examines the effect of argument strength, information focus, group identity on social influence. Psychology students in Groningen filled in a questionnaire (N = 225) about whether they would implement a new enhanced school interface as a replacement for the old university interface, following the arguments of other psychology students. Result showed that there is a main effect of group identity on social influence. High in-group identifiers are more convinced to try the new interface than low in-group identifiers. Moreover, there is a three-way interaction effect of argument strength, information focus and group identity on social influence. People who identify strongly, were not primed with an information focus and were in the strong arguments condition were more convinced to try the interface than people who identify weakly, were primed with an information focus and were in the weak arguments condition. Implications about this result are discussed.

Keywords: Social Influence, Information focus, Argument strength, Group identity, Need for Cognition

Introduction

External factors influence people every day. In the same way, people are influenced by each other. People use words and arguments to convince one another of their point of view. Their own views may change consciously or unconsciously because of those arguments. When asking for advice from friends or family people choose to change their opinions. Due to conversations with friends or even strangers a person's opinion about a certain topic can be changed without a person consciously asking for it.

Words however, are not the only factor important in social influence. A multitude of factors can contribute to a person being influenced by another person. For example, it depends on who the person is that influences other people. This paper will not only look at the information that is given that influences people, but also the person that is giving the information, distinguishing between the source and the message.

One theory that looks at the process that influences people is the dual process model by Deutsch and Gerard (1955), which distinguishes between normative and informational social influence. A normative social influence is explained to be the degree to which a person conforms to another person's positive expectations. Informational social influence means accepting information from other people while consciously processing the information. Informational influence is a form of true influence, in which it does not depend on feelings about other people. Normative influence is socially motivated by a need for belonging or rewards. It also is motivated by group pressure. Informational social influence thus means an individual internalizes information regardless of other factors such as group identity. This theory was built upon by Turner (1982). Turner explains that there is a third form of social influence; referent informational influence. This influence is based on the principle that people trust their in-group to provide them with relevant information and internally accept that information as being truthful. These three forms of social influence co-exist and interact

with each other. All three forms of social influence have been tested and scientifically proven. Theoretical it is possible to distinguish these three forms of social influence, practically it is difficult to distinguish them and oftentimes multiple forms of social influence are present. Spears (2021) has combined these sources of social influence in a model that encompasses all three and shows that the forms of influence overlap and interact. This paper will focus mainly on informational influence, but also includes the role of group identity as a factor that has an effect social influence.

The model of Spears (2021) includes three important realms. The 'Other/outward' realm, the 'Personal self' realm and the 'Group self' realm. This research will be mostly focussed on the 'Other/outward' realm in which a person is focused on information and evaluation instead of normative influence and self-interests. Moreover, this research will include the 'Group self' realm in discovering whether the opinions of the in-group influences the decisions of the individuals in that group.

There are different forms of relevant informational influence. People are often uncertain how to behave in a certain situation (Cialdini and Trost, 2007). They tend to look to other people for information to determine how they should act. How a lot of people act can be perceived as the right thing to do, since the behaviour is common. Conforming to the norm in this way is motivated by reducing uncertainty instead of wanting to fit in. People consciously process that this behaviour is the right behaviour and thus fits into the realm of informational social influence. This example shows that informational influence is not unmotivated. Informational influence is oftentimes predicted by argument strength. In a study by Schreiner et al. (2018) it showed that strong arguments were more persuasive than weak arguments. This study will also look at a change in informational focus. Informational focus means that people evaluate and judge the information (or arguments) they are looking at or that evaluating information is more salient. In a study performed by Cacioppo and Petty (1982) the

'Need for Cognition' (NFC) was measured. NFC is defined as how much an individual feels the need to 'engage in and enjoy thinking' (Cacioppo and Petty, 1982). People with high scores on NFC found themselves enjoying difficult tasks more than people with low scores on NFC. In a study performed by Cho and Park (2014) they found that for smartphone adaptations high scores of NFC are more influenced by perceived usefulness and low scores are more influenced by subjective norms and perceived ease. This means that high scores of NFC are more swayed by informational influence and low scores more by the underlying subjective norms. The following hypotheses are formed:

H1: Individuals are more persuaded by strong arguments than weak arguments.

H2: When primed with an informational focus, the difference between persuasion by strong and weak arguments is larger than when individuals are not primed with an informational focus.

H3: The difference in persuasion in strong and weak arguments is higher for high scores of NFC than low scores of NFC.

Another aspect of the model by Spears (2021) is group identity. It suggests that group identity has a part in social influence. Group based influence leads people to internally accept the message (Spears, 2021). This build further upon the referent information theory of Turner (1982). According to Feliciani et al. (2017) we tend to be more influenced by likeminded people, such as a group of people who have something in common. Similarly to NFC, there are also people who identify highly to a specific group, and low identifiers for the same group. According to Ellemers et al. (2002) it is the high-identifiers that focus mostly on in-group norms. This leads to the following hypothesis:

H4: High in-group identifiers are less influenced by the difference in argument strength than low in-group identifiers.

Methods

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 are 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) x 2 (“informational focus”: yes vs no; between) 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 utilized 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 utilized to select the arguments used in the main study. See appendix Z 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 “Randomizer” 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 are giving their opinion about a new software program following arguments made by other students to measure social influence. In the ‘Job selection’ task students are giving their opinion about hiring a new lecturer to the university to prime informational focus.

Group identity scale

The research started with questions about how the participants viewed themselves 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 Y). The reliability of the scale is $\alpha = .85$. Next the participants were divided into one of four conditions. The first condition consisted of strong arguments where informational focus was primed, 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

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 Y). 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 X).

New Nestor task

Next up, the 'New Nestor' task designed to assess 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 Q for the cover story, the arguments and the scale.

Results

The analysis performed is a 3-way univariate Analysis of Variance (ANOVA). The data is relatively normal distributed. Furthermore, the data is independently collected and no notable outliers have been discovered. The Q-Q plot shows there is homogeneity of variables. All missing data has been removed before running the analysis. Need for cognition was not used in this analysis, since the variable reported only non-significant results and therefore had no impact on the analysis.

The analysis shows no significant main effect for argument strength $F(1,206) = 1.92, p = 0.17$. Hypothesis 1 is not supported. People were not more persuaded by strong rather than weak arguments. This means there is no significant difference in means between participants who saw strong arguments and participants who saw weak arguments. Moreover, there is no significant main effect for information salience $F(1,206) = 0.11, p = 0.75$. It was not statistically significant for participants be primed for informational awareness before answering how convinced they were by the arguments. Moreover, there is no significant interaction effect between argument strength and information salience $F(1,206) = 0.99, p = 0.32$. Hypothesis 2 is also not supported. Hypothesis 2 stated that the difference between participants that were persuaded by weak and strong arguments was larger for participants that were primed with an informational focus, which was not the case.

Hypothesis 3 indicated that the difference in persuasion by strong and weak arguments is stronger for people with high scores of NFC than people with low scores of NFC. Need for Cognition however, was not included in the analysis, since it had no significant main effect. Since Need for Cognition is not included in the analyses, no assumptions can be made about any interaction effects. Therefore, nothing can be said about hypothesis 3. There is a main effect for group identity $F(1,206) = 11.37, p = 0.001$. It can be seen from table 1 that high identifiers are more convinced ($M = 4.918, SD = 0.079$) than low identifiers ($M = 4.631, SD$

= 0.083).

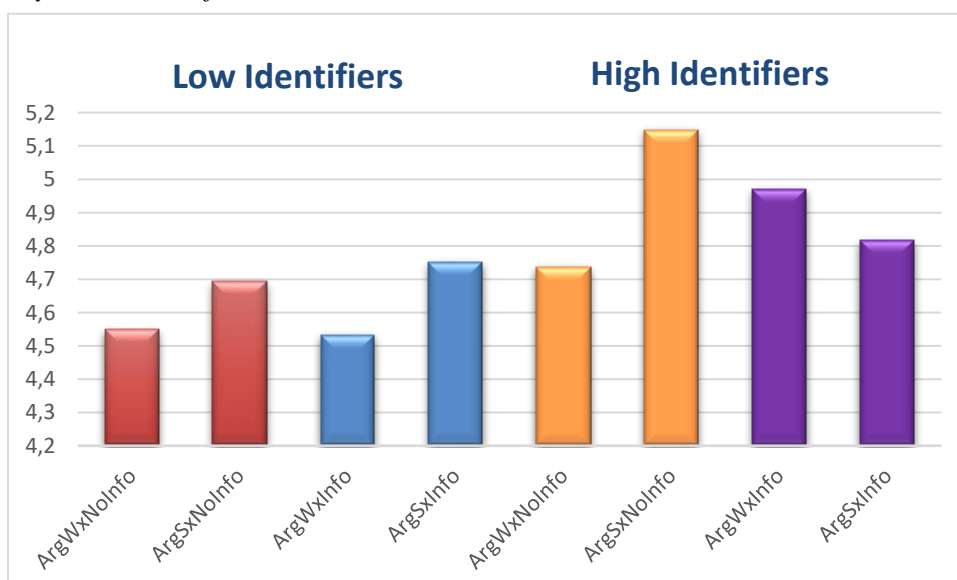
Table 1
Target descriptives main effects

	Group	Mean	SD
Argument Strength	Weak arguments	4,697	0,081
	Strong arguments	4,852	0,081
Information Salience	Information focus	4,781	0,081
	No information focus	4,768	0,081
Group Identity	Low identifiers	4,631	0,083
	High Identifiers	4,918	0,079

The interaction effect between argument strength and group identity is not significant $F(1,206) = 0.49, p = 0.49$. Hypothesis 4 indicates that high in-group identifiers are less influenced by the difference in argument strength than low in-group identifiers. These results indicate that hypothesis 4 is not supported, however, there is an interesting three-way interaction between argument strength, information salience and group identity $F(1,206) = 3.33, p = 0.069$. When there is no information focus prime, participants highly identify with psychology students and the arguments are strong ($M = 5.15, SD = 0.16$) people are more convinced than when there is an information focus prime, participants weakly identify with psychology students and there are weak arguments ($M = 4.53, SD = 0.17$). It can also be seen in Figure 1.

Figure 1

Bar chart of the three-way interaction of argument strength, information salience and group identity on social influence.



Discussion

The results fail to show the main effect previously discovered between argument strength and social influence (Schreiner et al. 2018). Other predicted effects were also not present, however interesting exploratory results could lead to further research. Overall the results were mostly unexpected, with the exception of the effect of group identity.

First the hypothesis and their implications will be discussed. There was no difference in conviction between strong and weak arguments. This means hypothesis 1 was not supported. This could be due to a lack of power in the research. It could also be due to the arguments chosen. The arguments selected in the pilot study might not have a large enough gap between weak and strong. Furthermore there was no significant difference in means between people primed for informational focus and people not primed with an informational focus, not supporting hypothesis 2. It was expected that people would focus more on the information provided when primed, closing the gap between being convinced by strong or weak arguments. The results suggest however, that while the results about information focus are not significant, the mean shows that people who are primed with an informational focus are generally more critical about all information provided.

Need for cognition was not used in the analysis used in this paper. The main effect was not significant and added no interesting information to the analysis. Hypothesis 3 was likewise not supported. Since NFC was not included in the analyses, no conclusion can be made whether the difference in persuasion is smaller for people with high scores of NFC. Group identity was the only variable to have a significant main effect. People who identified strongly with their in-group were more convinced than people who identified weakly with their in-group. While there was no indication that high in-group identifiers had a smaller difference in means between strong and weak arguments than low in-group identifiers, finding no support for hypothesis 4, there was an interesting exploratory effect found in the analysis.

A near marginal significant three-way interaction effect was found between argument strength, informational focus and group identity. It shows that with group identity as a moderator there is an interaction effect between argument strength and informational focus. The study was set up with references to universities, lecturers and new student software. When primed with information focus, instead group identity was primed. High in-group identifiers are more focused on the source of the message, then the message itself. For all conditions, strong arguments were more convincing than weak arguments, however for high in-group identifiers, primed for group identity instead of information focus, weak arguments were just as convincing as strong arguments.

Limitations

Several limitations have influenced this research. Firstly the power of this research could have been larger. While we did get the 50 people per cell, as per the rule of thumb, a larger power could have given support for the hypothesis 1 and 4 indicating a main effect for argument strength and an interaction effect between argument strength and group identity.

Secondly the difference between weak and strong arguments could have been larger. The research showed that students were not more convinced by strong arguments than weak ones, while previous research did show that effect. The arguments chosen from the pilot study were not the most convincing, but a balance between the most convincing and most credible arguments presented. If both the manipulation strength and power were addressed the main effect of argument strength would replicate what was discovered in previous research since the direction of the main effect was the same as previous studies.

Lastly, the information focus condition was meant to steer participants into a more evaluative mindset. This was meant to increase the distance in social influence for the strong and weak arguments conditions, for people would be more critical of the weak ones, while being more convinced by strong arguments. The results show however, that people were more

critical of both strong and weak arguments.

Future research

Further research could increase the power of the analysis. If the limitations are solved, then this research could perhaps replicate the results found in previous research. Secondly, the research could be expanded to other groups besides students to increase the external validity of the study.

Since the research provided interesting results in the realm of group identity, the research on that could be expanded. It would be interesting to see if the effect of group identity on social influence would be stronger in a real group setting, as well as the effect of argument strength is still present in that setting.

It would be interesting to see a better manipulation of the information focus variable. The goal is to prime people to be more evaluative of information without having them criticizing all information they read. In further research this manipulation could perhaps take a different form.

Finally it would interesting to see if the effects will have an effect in the long run. A longitudinal study will test if the social influence is indeed 'true influence'. True influence would lead to private acceptance and thus last longer than normative group influence that is not internalized. If the influence used is indeed true influence, group identity could be used by sectors such as the economic and advertisement sector.

This paper examined the effects of argument strength, informational focus and group identity on social influence. In conclusion people are more convinced if they highly identify with the group presenting the arguments.

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Appendix A

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.

Job selection task

In the following section we would like to find out about your evaluative and critical thinking abilities. We have just asked you directly about those critical and evaluative skills in the previous questionnaire, and now, on a second task, we are going to put those skills to the test.

We would like to find out how good people are at evaluating candidates with limited information as part of our research into personnel selection processes and decision-making. This research is concerned with evaluating the value of candidate assessment, with and without interview. One of these candidates was preferred after being interviewed. In this research we are interested in finding out whether judges who evaluate this application information alone without interview come to similar conclusions. You will be presented with two candidates to fill a job opening at the university are listed below. This is for a position in the Teaching Unit of the Physics department: 70% teaching, 20% research, 10% admin. We would like to ask your opinion through this survey by asking who you would choose and why. Consider two important sets of information from these candidates from their application, namely the reference letters from their referees (extracts specifically in relation to their teaching) and from their application letter.

Here are the summaries of key point from the reference letters of the two candidates, followed by extracts from their application letters:

Candidate 1:

She has had a lot of international research experience and currently lives locally. She has always been a hard worker but can sometimes be a little nervous while talking to larger groups. She is attuned to the needs of her students making her a good listener. She also enjoys receiving feedback and incorporates it in her work.

Candidate 2:

He has always been very keen on helping his coworkers/colleagues. He has addressed very interesting topics in his research, but can be very absorbed by that at times. He prepares his presentations very well and enjoys answering questions. He is an honest, modest person and a fine colleague to work with.

Here are extracts of the application letters for both candidates:

Candidate 1:

“I have always had a big interest in teaching.”

“Throughout my career, I have given many guest lectures which has led me to acquire a taste for teaching.”

“I am also very excited and motivated to start as a lecturer.”

“I am 28 years old and I have worked and studied in several different countries. This has led me to have a better understanding of foreign students and their experience as a foreign student here in the Netherlands.”

My teaching philosophy: “As a teacher, I want to share my passion with students and hope they will come to share this passion.”

Candidate 2:

“I am 29 years old and have 4 years of experience in teaching.”

“After obtaining my degree at the University of Oxford, I have taught at the University of Birmingham.”

“I have chosen to return to the Netherlands due to my roots being there”

My teaching philosophy: “My favourite aspect about teaching is interacting with the students, answering their questions and discussing topics with them.”

“I believe I can share the joys of research with students and prepare them for being researchers themselves.”

1. How much do you like candidate 1? (answers ranging on a 7-point Likert scale with the labels: “Not at all” to “Very much”, from left to right). The scale was the same for all items.
2. How much do you like candidate 2?
3. In your opinion, how qualified is candidate 1?
4. In your opinion, how qualified is candidate 2?
5. How likely would you recommend to hire candidate 1?
6. How likely would you recommend to hire candidate 2?
7. Which candidate would be the most suited for the job in your opinion? (2 answers options: candidate 1 or candidate 2)

Study 2: A new Nestor?

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 was 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.

**One of the 2 manipulations was showed to the participant (weak vs strong arguments)*

Strong arguments condition

Here are some quotes from the psychology students that were asked:

- “StudyUI can be accessed through a phone application, enabling me to look at my grades, courses and emails anywhere at any time which increases my accessibility and ensures that I have a backup.”
- “I think the search bar looks more sophisticated, but more importantly, it helps me as a student to find information quicker.”
- “I think the website has a better design and functionality, as well as being more organised and helps me find information more easily.”

Weak arguments condition

Here are some quotes from the psychology students that were asked:

- “I enjoy the new layout as it is different from the previous one, I was using.”
- “In my opinion, the new search bar looks more professional and cleaner.”
- “The website is up to date and new, which I think is always a pleasant thing to have.”

Based on the information you have seen, please tell us what you think about StudyUI by indicating your (dis)agreement with the following statements.

15. I am willing to try this new software. (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.

1. I think this software is promising.

2. I think this software is valuable.

3. I would recommend others to try this software package.
4. I would go out of my way to try this new software.
5. I feel persuaded to give this software a chance.
6. I think this new software will make the site easier to use.
7. I am more willing to use StudyUI as I am/was willing to use the current site.
8. I think I will benefit from using this new software, in contrast to (keep on) using the existing site.
9. If this is good enough for the people who have used it in the research study (focus group), it is good enough for me.

Please indicate your gender

- Male
- Female
- Non-binary / Third gender
- Prefer not to say

Please indicate your nationality

- Dutch
- German
- Other (please indicate)

Debriefing

Thank you for taking the time to participate in our research. As you know this consisted of two studies that we describe as unrelated, although we were actually interested if there might be a potential relation between them. In the “new Nestor” study we manipulated the strength of the arguments presented and also whether the second study (your views on which lecturers to hire) was presented before or after we asked for your opinions about Nestor. This resulted

in participants being allocated to one of four different conditions, with either strong or weak arguments and either the hiring task before or after giving their opinion on Nestor. We measured the degree of social influence resulting from reading the arguments about the new Nestor interface and expected that people are more influenced by strong than weak arguments. Additionally, the hiring task was designed to put participants in more critical mindset for evaluating information, so if this task was completed before the Nestor task, we predicted that the difference in persuasion between strong vs. weak arguments would be even greater than when the hiring task came second (and couldn't therefore influence the mindset).

Furthermore, we expect that people are more influenced if they highly identify with other psychology students, since the arguments are presented as emanating from other psychology students from a focus group. We hope you understand why we could not provide full information about our intentions behind these tasks and connection between them earlier on (as this might influence your answers by eliminating the experimental differences). Meanwhile we hope this research was of interest and thank you again for your participation!

If you have any questions or comments, feel free to ask us now in the space provided or contact us via (email address here). Because other students may be participating in this study in the future, we ask that you do not discuss the details of this study with other Students.

Appendix B

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

Q1b: Do you have any suggestions on how to improve the cover story?

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.