Effects of Group Identity, Informational Salience, and Argument Strength on Social Influence

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Bachelor Thesis – Psychology

Abstract

The topic of social influence has been relevant for researchers across fields. Because of its relevance in real-world situations, it will remain a subject of research in the future. Various theories have been laid out to describe relevant processes and mechanisms, this research focuses on the effects of three variables from the realm of social influence. An experiment with 224 first-year psychology students was conducted, key characteristics from three factors were manipulated: 1) argument strength (weak vs. strong), 2) group identification (low vs. high) and 3) informational salience (present vs. not present). Results show that higher group identification leads to stronger social influence, no significant main effects were found for argument strength, but a predicted direction for stronger arguments to have higher social influence was observed. When all predictors are present at the same time, the effect on social influence increases, especially for the condition in which an individual highly identifies with a group and has high informational salience. In this specific condition, argument strength seems to play a weaker role. This research offers empirical evidence usable in various models of social influence. Theoretical and practical implications, interpretations, and future directions are discussed.

Keywords: social influence, argument strength, informational salience, group identity

Effects of Group Identity, Informational Salience, and Argument Strength on Social Influence

We all experience the effects of social influence daily. Even if we are not fully conscious of it, our surroundings influence us in a multitude of ways. Whether it is a colleague convincing us to ask our supervisor for a raise, the attractive celebrity on the poster of a new car advertisement (e.g., Yerasani et al., 2019) or simply automatically facing the same way when using an elevator with multiple people (Asch, 1962). Social influence also plays a key role in complex fields such as politics, or public relations (Saffer et al., 2019).

Deutsch and Gerard (1955) theoretically distinguish between two types of social influence in their dual process model: 1) Informational influence, which entails people truly being influenced on the basis of processing information, and 2) normative influence, which entails people being influenced due to normative pressures by the group and accepting the content of the message for that specific context, but not privately accepting the message (and thus not being truly influenced) to avoid social costs or gain benefits. In normative influence, where people are influenced by other members of their group, the pressure to conform plays and important role. A key difference to informational influence is that normative influence often leads to the person not being internally influenced by the given information, but the just conforming to the group to gain an advantage/reward or avoid disadvantages/punishment or disapproval. In contrast to this, informational influence affects the person internally without the influence of a group present. One example for these two types of influence could be an election for class president in high school: Pupil 1 has a large group of friends which also includes a candidate for the election. Pupil 1 does not agree with his policies, but the group of friends all vote for their candidate so Pupil 1 conforms and also votes for him. Pupil 2 is not connected to the candidates in any way and decides, after studying the candidates' policies, to vote for a candidate which aligns most with his own views. Pupil 1 has experienced normative

influence, whereas Pupil 2 is affected by informational influence.

Another theory was proposed by Turner (1982). He reinterprets the mechanisms of social influence by explaining it based on a more group-related approach. Turner describes referent informational influence (RII) in the context of self-categorization theory (SCT) (Turner, 1989); being in the same group leads to stronger internal acceptance of messages, because people are trusting towards their in-groups to provide them with accurate information.

The various theories have been validated by further research and have shown to be effective in describing the underlying processes of social influence. Turner (1982) developed his model as a critique of Deutsch and Gerard, but the interaction of different kind of social influences is still not explained sufficiently. It has been questioned whether informational influence which is not group-based even exists. Debates have focused on finding out which theory is correct, leading to a focus on scientific competition rather than integration.

Spears (2021) developed a model which describes the interplay between the various social influences with a three-realm integrative model. He elaborates that some factors seem to be more prominent in different contexts and integrates the various mechanisms and forms of social influence. Whenever an individual's focus is not primarily directed at the individual itself, the individual leaves the domain of its personal self and enters the domain of "other/outward" attentional focus. This domain of the model is connected to informational influence, where a person is genuinely influenced by using information-processing and problem-solving skills (Spears, 2021). Eagly & Chaiken (1993) bring forth another highly prominent predictor of influence which is argument strength. Argument strength can be defined as an audience members perception of the strength, quality and persuasiveness of the argument employed (Zhao et al., 2011). The Elaboration Likelihood Model, which was developed by Petty and Cacioppo (1984) presents a similar kind of dual process theory, where

information is processed by an individual through a central (careful and thoughtful consideration) or peripheral (association with positive or negative cues) route. If an individual is in the "other/outward" domain, this individual becomes more receptive towards accurate or objective information, meaning that there could be a larger effect of argument strength in this domain.

The following hypothesis (I) is presented: Individuals are more likely to be influenced by strong arguments than weak arguments. Hypothesis II predicts that, for individuals who lay special emphasis on the information focus, the effect described in hypothesis I becomes even stronger. The third hypothesis (III) states: Individuals strongly identifying with their group will be more influenced by the opinion of their group than individuals who do not identify as strong with their group.

Method

Participants & Design

In total the sample consisted of 224 first-year psychology students from the University of Groningen. Some participants were excluded from the research, because of not finishing the study. The size of the dropout was 10 participants (4,46%), leaving 214 usable participants for our research. The sample consisted of 74.8% ($n = 160$) female students and 24.9% ($n = 53$) male students of which 56.1% were national (Dutch) 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-subject 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. 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 B 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 had to give their opinion about 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 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 B). The reliability of the scale is $\alpha = .85$, the reliability of the variable social influence is $\alpha = .88$. 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 extremely uncharacteristic to extremely characteristic. An example of a statement is: 'I would prefer complex to simple problems' (see Appendix A). 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 of 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 A).

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 which 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 A for the cover story, the arguments, and the scale.

Results

Participants & Data

A quasi-experimental research design was used with a sample of 214 first-year psychology students from the Rijksuniversiteit Groningen. A univariate analysis of variance was performed, and assumptions were checked. A normal distribution on the Q-Q plot indicated support for linearity, normality is also confirmed by insignificant results of the Shapiro-Wilk's test for all dependent variables. The assumption of homogeneity of variance across groups was violated as Levene's test was significant ($p > 0.001$).

The variable IdentCent showed a strong and significant main effect on social influence ($F = 6.225$, $p = 0.013$). The three-way interaction effect between variables IdentCent, InfoSal and ArgWvsS almost reached significance ($F = 3.636$, $p = 0.058$).

Figure 1

Effects of argument strength and informational salience, sorted by group identification
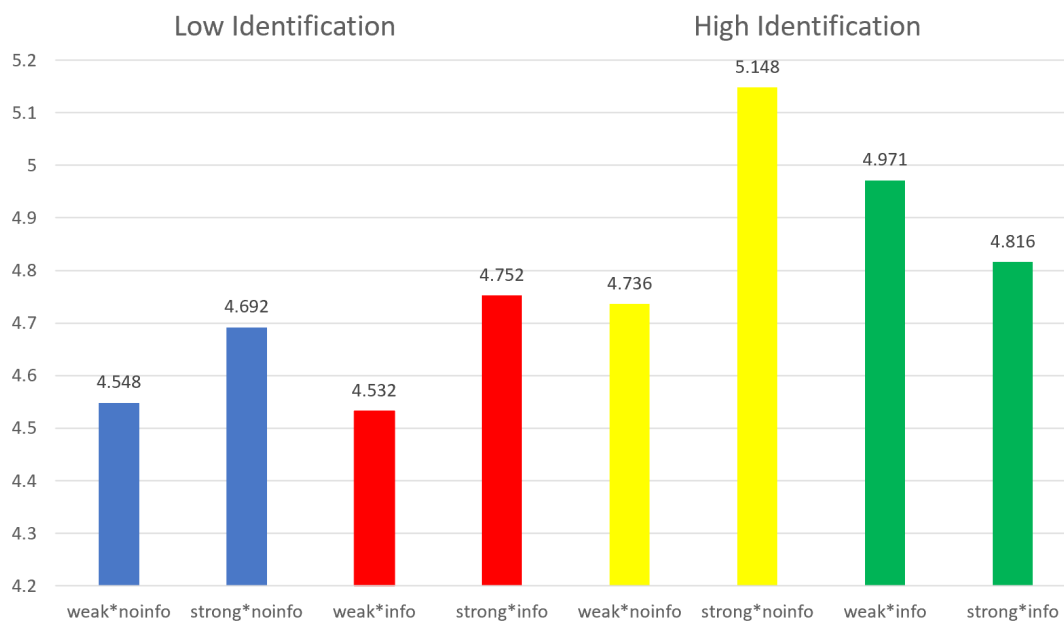
The graph above shows means for social influence along the various conditions, it is sorted by low group identification, represented by the four bars on the left, and high group identification, represented by the four bars on the right. Bars 1, 3, 5 and 7 show weak argument strength, bars 2, 4, 6 and 8 show strong argument strength. Low informational salience is represented by bars 1, 2, 5 and 6, high informational salience is represented by bars 3, 4, 7 and 8. Individuals who are high in group identification seem to be more influenced than individuals with low group identification, in all cases, the social influence was stronger in the strong than in the weak argument condition direction-wise (as was predicted), except in the condition high informational salience, high group identification. In this specific condition, this weak-strong pattern goes in the opposite direction. There are various possible reasons for this, which will be addressed at a later point.

Argument strength did not show a statistically significant effect on social influence ($F = 1.520$, $p = 0.219$), indicating that hypothesis I might not be supported. Looking at the mean difference between the low argument and high argument strength, however, an effect in the predicted direction can be observed.

The two-way interaction effect between argument strength and information salience

did not reach a statistically significant effect on social influence ($F = 0.837$, $p = 0.361$), indicating no support for hypothesis II.

Group identification acts as a moderator on social influence, with a strong and significant effect ($F = 9.983$, $p = 0.002$), indicating that hypothesis III might be supported. The mean value of social influence for the low identification condition (1) was 4.623 ($SE = 0.08$) with the mean for the high-identification condition (2) being 4.917 ($SE = 0.081$), indicating the presence of a group identification effect, where high identifiers are more strongly influenced than low identifiers.

Discussion

The hypotheses and their implications and explanations will be briefly discussed. Hypothesis I predicts individuals to be more likely to be influenced by strong arguments than by weak arguments. Unexpectedly, the results show that this hypothesis cannot be supported by the data, meaning that the strength of the arguments does not correlate significantly with social influence. It is important to note that the direction of the effect was as predicted, except for the high group identification, high informational salience condition, where it is reversed. An individual which strongly identifies with a group will put less focus on evaluating an argument rationally and more focus on how in-group members see it. If this individual also has high informational salience, this might get potentiated. This could lead to strong arguments not being recognized as strong, or even being evaluated weaker than the supposed "weak" arguments.

Another factor playing a role might be a lack of power or a lack of strength of manipulation. Furthermore, there could also be a third variable lurking in the background and influencing the relationship. A potential lurking variable could be people's need for cognition, which is measured by informational focus. Individuals are influenced in the way they process arguments by their need for cognition.

Hypothesis II states that individuals, which lay special focus on the information focus will be more sensitive towards the argument strength manipulation than individuals who do not. The data also shows no support for hypothesis II, which bases on hypothesis I. This means that individuals with higher informational salience do not seem to be influenced differently than individuals with lower informational salience. Individuals who began the survey in the information focus condition might be more critical of all arguments, instead of being more sensitive towards argument strength.

Looking at the Elaboration Likelihood Model (Petty et al., 1986), it can be assumed that informational influence consists of an individual being influenced by the content of the message which, in this case, would be the variable argument strength. Our findings do not directly support this, since no statistical significance was reached, but the direction of the effect was as predicted, as previously mentioned in the analysis of hypothesis I.

The three-way interaction effect between the variables information salience, group identification and argument strength almost reached significance, which makes real-world application of findings hard, but still allows theoretical interpretations. It might be the case that only if all factors are present at the same time, e.g., an individual having high information salience, being presented with strong arguments and receiving these arguments from members of an in-group, the probability to be influenced increases.

Conformity to the in-group of psychology students increases through self-categorization (see Turner et al. 1987), which fits into concepts of referent informational and normative influence. Arguments are more convincing coming from a familiar group fitting to the individual's personal identity, according to Asch (1962) like-minded individuals' beliefs tend to be strengthened.

Hypothesis III predicts individuals to be more strongly influenced, if they strongly identify with their group. Our data supports this hypothesis, indicating that group

identification seems to play a larger role in social influence than argument strength. Individuals seem to put their focus more on what like-minded people from their in-group think about an issue than on the actual content of the issue itself.

Theoretical and Practical Implications

The origin of an argument, e.g., the in-group or out-group, plays an important role in whether an individual is influenced or not. An individual having high identification with their group might be more influenced than an individual who does not identify with their group, even if they are aware of this effect being present (Asch, 1962). The results of this research seem to support this assumption.

Our results could be useful for the corporate world, companies might be able to use these implications to attract more customers and increase revenue. Since group identification plays a major role in this influencing process, companies should make it easy for many individuals to identify with the presented image of the company. One example of this is the "Breaking Barriers" campaign by the sports clothing company "Nike". Taking a stance against discrimination and racism is becoming more important, if individuals see a company also endorsing these values which are personally relevant to themselves, they might be influenced to buy more products from this company and belong to the "exclusive" group of people who can afford to prioritize these issues and are part of the brand. Whether corporate interest in humanitarian issues is authentic or not is beyond the scope of this paper, but utilizing this mechanism seems to work sufficiently to influence customers.

This effect of group identity on social influence can, due to its universality, also be applied for fields such as politics (as mentioned in the introductory example), where an individual tries to create a persona which provides as many elements as possible, with which the voter can identify.

Strengths and Limitations

We collected data from a sample of psychology students, making findings and interpretations applicable to this specific population of students. A main limitation for our study was its low power (0.672), potentially explaining our lack of support for hypothesis I and II. There also was a slight imbalance in the allocation of participants in the "no information" condition (102) and the "information" condition (112), where participants indicated their degree of identification. Furthermore, five influential outliers were present, and the homogeneity of the variables was violated. Further research will be required to find factors playing a role in this and confirming the replicability of our findings.

Conclusion

Our study investigated the effects of group identification, argument strength and informational salience on social influence. Group identification seems to play a vital role, but it is not clear how extensive the influence of argument strength and informational salience is. The effect also seems to be stronger if all predictors are present at the same time. Further research will be required to investigate the relationships between these variables and to find more factors playing a role in this dynamic process.

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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.

<u>Job selection task</u>

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)."

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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.