

**Encouraging UBC students to participate in the 2015 Transit Referendum**

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**PSYC 321**

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### Executive Summary

There has been an extensive amount of qualitative research in the field that covers voting motivation, and how different primes, such as invoking a certain feeling or behavior, can influence people to demonstrate pro-voting behavior. In the current study, we wanted to determine how we could encourage students from the University of British Columbia to vote in the 2015 transit referendum. In the study we conducted, 115 students from the university who were eligible to vote in the referendum were asked to answer one of four different web-based surveys containing a short paragraph priming them with either descriptive social norms, voter identity, a voting action plan or no prime. Subsequently, participants filled out a short questionnaire about their views and knowledge about the referendum and also whether they intended to vote. We hypothesized that UBC students would be more willing to vote when primed by descriptive social norms in comparison to the other conditions. We also hypothesized that all of our prime conditions would have more of an effect than the control condition. Interestingly, we found that all of the three primes yielded no significant differences in participants' intention to vote in the 2015 transit referendum.

How do we get students to vote? As the 2015 Transit Referendum ballots were about to be sent out to residents of Metro Vancouver, and posters started going up around campus, we wanted to know if there was anything we could do to encourage UBC students to register and vote.

Previous research has provided insight into some strategies that can be used to increase voter turnout. A study done by Gerber and Rogers (2007) looked at the effect of descriptive social norms on voting behavior. Their study revealed that emphasizing high expected voter turnout was effective in encouraging participants to vote in comparison to a low expected voter turnout or a control condition. Another experiment by Nickerson & Rogers (2010) revealed that voter turnout was increased if participants were encouraged to formulate a specific action plan on how to vote. Bryan et al. (2011) also investigated ways to motivate people to vote, and found that priming students to think of themselves as “voters” resulted in a significantly higher likelihood of interest in registering to vote.

We were interested to see if we could apply these findings to the transit referendum and direct our intervention to UBC students. Informed by the literature by Gerber & Rogers, we speculated that getting students to believe that a high turnout is expected in the referendum would increase their willingness to vote. It is also expected that students’ willingness to participate be influenced by what Bryan et al. labeled as “invoking the self,” in other words, encouraging participants to personally identify themselves as being a “voter.” By making students think of themselves as voters, it would encourage them to consider the issues at hand and the possible outcomes of the vote, and to feel like they have a voice. Lastly, encouraged by Nickerson & Rogers, we posited that providing students with a specific voting “action plan,” outlining the necessary steps to cast their vote, will make them more likely to participate.

The three previously mentioned strategies were used in our study to prime the participants: getting students to think a lot of other students are voting, getting students to think of themselves as voters and getting students to consider a voting plan. We hypothesized that being primed would make students more likely to report that they intend to vote in the referendum, and we speculated that, due to the amount of extensive research on its influence, the social norms prime would yield the most significant results. Based on the findings outlined above, the experiment was conducted using three stimuli paragraphs that were designed to test this hypothesis.

If the hypothesis was confirmed, interventions using similar priming stimuli could be implemented to encourage UBC students to register and vote not only in this referendum, but in future political affairs on campus and in the city of Vancouver. Thus, we ask the following question: How do the previously mentioned strategies (descriptive social norms, invoking voter identity, and making an action plan) affect voting intention when used to prime students?

## **Methods**

### **Research Design and Procedure**

To test whether we could encourage UBC students to participate in the referendum, we designed a web-based survey with three experimental conditions and a

control condition (Refer to Appendix D). We used the online survey software Qualtrics, and used the randomizer tool so participants were randomly assigned to one of 4 surveys. In order to recruit student participants, we used convenience sampling on campus, in the SUB and IKB during peak hours over three weekdays and personally invited students to take our survey on an iPad. Consent was obtained from participants before they began the survey: participants were aware that this study was part of a class project and they were given the contact information of the researchers (Refer to Appendix A).

### **Participants**

Participants were UBC students who agreed to take part in the survey and who were eligible to vote (Canadian citizen of at least 18 years of age living in Metro Vancouver). In total, 126 participants filled out the online survey, however 11 were excluded for providing insufficient information and for not answering the target question. The final amount of participants totaled 115 students (around 30 for each condition) from a diverse set of faculties, of which 48 were males, 65 were females, and 2 did not identify. Ages ranged from 18-42 (42 was an outlier) ( $M = 20.7$ ).

### **Conditions**

In our experimental conditions, participants received introductory information about the referendum followed by one of three experimental conditions with priming stimulus. The stimuli came in the form of a short passage either informing students of voting turnout for the U-pass vote (descriptive social norms), affirming the students of their identity and responsibility as a voter (voter identity), or providing students with an explicit step-by-step method of voting (action plan). The control condition included the introductory information with no priming passage. The passages that we created for each of the primes were based on previous findings on how to increase voter turnout.

### **Measures**

We collected self-reported responses to demographic questions, such as age, faculty, whether participants commuted to campus, etc. (Refer to Appendix B), followed by a series of questions regarding their knowledge and opinion about the referendum. We measured our dependent variable (voting intention) according to Yes/No responses to the following question: "Do you intend to vote in the referendum?" This question was asked in the survey in all conditions after participants received the prime conditions or no prime in the control condition.

### **Results**

Raw data on voting intention in the referendum showed that priming students with descriptive social norms was the most successful, with 76.67% students intending to vote while the voter identity prime was the least, with a frequency of 53.85%. The control and action plan prime yielded frequencies of 74.07% and 68.75% respectively.

As categorical data was collected and frequencies measured, chi square tests were run to determine significance of our results. Statistics were calculated between all the

conditions (resulting in six tests total). At  $\alpha = 0.05$  and  $df = 1$ , no significant differences were found between all the conditions (See appendix E). This means that it cannot conclusively be said that any prime independently affected students' intention to vote.

Although priming students with social descriptive norms did yield the greatest intention to vote, it must be said that our hypothesis was not supported. Such is the case as the difference was not great enough to be significant and all other primes failed to do better than the control condition, which had no prime at all.

Effect size ( $\phi$ ) was also calculated for all interactions between the conditions, and three small effect sizes were found. Interactions between the control and voter identity ( $\phi = 0.219$ ), social descriptive norms and voter identity ( $\phi = 0.240$ ), and voter identity and action plan ( $\phi = 0.153$ ) yielded the mentioned effect sizes. This suggests that further investigation into these specific interactions could discriminate the most effective prime for encouraging voting behaviour.

The survey also included some additional questions (refer to Appendix B for survey items). Additional information gained from those questions showed that most students were aware of the referendum, most students were commuters and the mean perceived importance of the referendum for students was 7 (on a scale of 1-10). From this data supplementary research could be conducted to examine whether answers to any of these questions is correlated with voting intention.

### **Discussion and Recommendations**

The results revealed no significant differences between the three conditions and the control, suggesting that priming students with social descriptive norms, a voter identity, or an action plan does not increase or decrease their voting behaviour. Despite our findings, previous studies have clearly identified substantial results in voting turnout when priming voters, meaning weaknesses of our study and alternate explanations for our results should be discussed.

A particular issue with our study is that the manipulation strength may have been too weak. To improve on this issue, further research could be done by observing different versions of the primes used in the study. For example, it was decided that invoking a voter identity would be used instead of a student identity and for the descriptive social norms, a percentage of 90% student involvement was implemented as opposed to any other (such as the 70% used in the original study of descriptive social norms by Gerber and Rogers). These minor changes may shed light on the reason behind our insignificant results. Concerning the action plan condition, which explicitly told participants where and how to vote, the previous study by Nickerson and Rodgers was conducted by telephone and participants were verbally given directions on voting. In comparison, the participants in our study read a passage, which may not have as strong an effect than being verbally told. In essence, by diversifying the primes, an ideal version of this study could be done with the strongest possible variation of the primes, which would hopefully yield a clearer difference between all the conditions.

A self-made survey was used, which could be viewed as a reliability and validity issue in regards to the results drawn from the data collected. Perhaps by looking into previous studies done in this field, an improved survey can be made and distributed to ensure that results will be both reliable and valid in any future studies. Another glaring

weakness is the sample size, with a total of only 115 participants; the results could possibly be affected by sampling error.

In addition, we chose to collect categorical data, using a Yes/No response for the target question - "Do you intend to vote in the 2015 transit referendum?" As a result, chi square tests were used to analyze the data, which provides a fairly limited statistics. It would be an interesting alternative approach to use an interval or ratio scale, such as a Likert scale from 1-7 to survey the likeliness of students to vote in the referendum. By doing so, alternative statistics, such as descriptive statistics, an independent samples t-test, as well as a one-way ANOVA could be done to possibly generate more information on the effectiveness of each individual prime.

In regards to alternate explanations to our results, the majority of our data was collected during high traffic hours (11am - 1pm) where UBC students could have been in a rushed, high-stress situation, such as heading to a class or preparing for a midterm. Therefore it is quite possible that due to these factors, participants did not pay adequate attention to the prime to be affected. UBC campus has also, during the period of our study, been saturated with advertisements, pledges, and other studies on the transit referendum. Due to this saturation, the surveyed demographic may have been well informed about the transit referendum prior to taking our survey, and might have already taken a stance on the transit plebiscite, hence ignoring the primes completely.

Future directions about the encouragement of voting behavior in UBC students should be further examined. It is valuable to find out about some of the ways we could increase student participation in voting for future referendums and/or student politics within the community at UBC, and to help students know that they have a say in affairs concerning life on campus and beyond. Some implications of this study are to improve student's well being by bringing attention to the issues that the city government want to address about transit advances across the Metro Vancouver area because the outcomes of this referendum directly impacts students who commute to campus and take transit on a regular basis. We believe that positive changes can be created through the involvement of the student community in the voting process, especially when there is a discord in communication between transit affairs and what improvements students believe need to be implemented to establish a happy medium.

## References

Bryan, C., Walton, G., Rogers, T., & Dweck, C. (2011). Motivating Voter Turnout By Invoking The Self. *Proceedings of the National Academy of Sciences*, 12653-12656.

Gerber, A., & Rogers, T. (2009). Descriptive Social Norms And Motivation To Vote: Everybody's Voting And So Should You. *The Journal of Politics*, 71(1), 178-191.

Nickerson, D., & Rogers, T. (2010). Do You Have A Voting Plan?: Implementation Intentions, Voter Turnout, And Organic Plan Making. *Psychological Science*, 21(2), 194-199.



**Appendix A**  
Pre-survey consent page

Welcome to our study. We are running a survey on voting behavior as our group project for the PSYC 321-Environmental Psychology course. The survey will take about 5 minutes to complete. You will answer a series of questions on the upcoming Transit Referendum in the survey.

Your participation in this survey is entirely voluntary and anonymous. You can refuse to participate or withdraw from the survey at any time. Your identity will be kept strictly confidential. All documents will be identified only by code number and stored securely. You will not be identified by name in any reports of this study. Data in this survey will only be accessed by the students, the course instructor, and the teaching assistant. Results of this study will be used to write a research report. There are no risks associated with participating in this survey.

If you have any questions about the study, please contact us below. (list every student on this project)

Name: Rami Kahlon Email: [REDACTED]  
Name: Iqmal Ikram Email: [REDACTED]  
Name: Jackie Huang Email: [REDACTED]  
Name: Ines Lacarne Email: [REDACTED]

You can also contact the course instructor, Dr. Jiaying Zhao, assistant professor in the Department of Psychology and the Institute for Resources, Environment and Sustainability at UBC. Dr. Zhao can be reached at 604-827-2203, or [environmentalpsychology321@gmail.com](mailto:environmentalpsychology321@gmail.com).

If you consent to participate in this study, please proceed to the next page.

**Appendix B**  
Survey items

Age:

Year:

Faculty:

Gender:

Male

Female

Years living in Vancouver:

Do you commute to UBC?

Yes

No

How often do you use transit?

Never

Less than Once a Month

Once a Month

2-3 Times a Month

Once a Week

2-3 Times a Week

Are you aware of the upcoming Transit Referendum?

Yes

No

*Figure B1.* Survey page 1:Participant demographic and background information

Are you registered to vote in the transit referendum?

Yes

No

Have you ever voted in a Vancouver election/referendum?

Yes

No

Do you intend to vote in the upcoming Transit Referendum?

Yes

No

*Figure B2.* Additional questions and dependent variable question measuring voting intention

During the months from March through May, residents of Metro Vancouver will be able to vote on transportation issues regarding the city's public transit system. The transit referendum is proposing a 0.5% increase on the PST tax which will be used towards new transportation lines and more frequent service in Metro Vancouver. This proposed transit plan aims to reduce traffic congestion and pollution.

*Figure B3.* Introduction shown in all experimental and control conditions

## Appendix D

### Stimulus materials

Participants received one of three primes in the experimental condition (Figure D1, Figure D2 or Figure D3)

The 2013 AMS U-Pass Referendum, a referendum which concerned UBC students to a similar degree as the transit referendum, saw a record-high turnout from students. Over 90% of UBC students voted on the issue, which was the largest amount of student participants from UBC. In addition, during a quick mock vote on whether UBC students were planning on registering for the 2015 transit referendum, the majority of students (more than 80%) said that they intended to. A very high turnout for the transit referendum can thus be expected, especially in regards to UBC students.

*Figure D1: “Descriptive social norms” prime*

As someone who is eligible to register in the transit referendum, you get the opportunity to be a voter and have a voice in decisions regarding the city's transit system. As a voter, you can have a direct impact on the outcomes of the referendum. The upcoming plebiscite requires the people of Metro Vancouver to be invested in the issue, and your personal investment and say in the issue will help yield the best results for the residents of Metro Vancouver and for the users of the public transit system. The future of Metro Vancouver relies on voters like yourself to participate in the 2015 transit referendum.

*Figure D2. “Voter identity” prime*

In order to vote, you must first be registered which, if you are not, is easily done online at <https://eregister.electionsbc.gov.bc.ca>.

You can also call 1-800-661-8683. You'll need your BC driver's licence number or the last six digits of your social insurance number. Once registered, anytime from March 17 – 27 you will receive a voting package in the mail and inside the package is a ballot, a postage paid return envelope and instructions on voting. If you do not receive a voting package in the mail, it is always possible to pick one up at one of eight Elections BC Plebiscite Service Offices throughout Metro Vancouver from April 13 to May 15. When you have received your ballot, you have until May 29 to cast your vote by mail. To do so, simply mail it via mailbox or through your local Canada Post office. You will also be able to mail your completed ballot in one of several mailboxes (those big shiny red metal boxes) across campus. Most noticeably, there are two mailboxes at the entrance off East Mall and the UBC Bookstore.

*Figure D3. “Voting plan” prime*

**Appendix E**  
Calculated Chi Square Statistics

Condition	Descriptive Social Norms	Voter Identity	Action Plan
Control	0.0515244	2.5497343	0.2023743
Descriptive Social Norms	-	3.2357733	0.487625
Voter Identity	3.2357733	-	1.353389
Action Plan	0.487625	1.353389	-