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Conformity and Persuasion: The Moderating Roles of Interpersonal Closeness and Interaction Partner Sex

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CONFORMITY AND PERSUASION: THE MODERATING ROLES OF INTERACTION
PARTNER SEX AND INTERPERSONAL CLOSENESS

by

Christianne Morrison

Department of Psychology

Submitted in Partial Fulfillment
of the requirements for the degree of
Bachelor of Arts
in
Honours Psychology

Faculty of Arts and Social Science

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Conformity and Persuasion: The Moderating Roles of Interaction Partner Sex
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Date

Dr. Christine Tsang
Chair of Department

Abstract

Research suggests that males are more persuasive than females (Carli, 1989; Cross, Brown, Morgan, & Laland, 2016). Additionally, research supports that interpersonal closeness facilitates persuasiveness (Thomas & Weigert, 1971). This experiment examines the effect of both persuader's sex and feelings of closeness on persuasiveness. Participants interacted with a confederate through an online chatroom and completed a modified version of the Relationship Closeness Induction Task (Aron, Melinat, Aron, Vallone, & Bator, 1997). After rating perceptions of closeness with the confederate, participants entered a group chat with two more confederates in addition to the interaction partner in which they discussed a mandatory fee increase. The first two discussion group members were against the fee increase, whereas the participant's interaction partner was in support of the increase. Similar to what was done in the experiment by Asch (1951), participants publicly expressed their level of support last. Participants then privately rated their level of support for the proposal on a post-interaction questionnaire on which they also answered other questions about their experience. The manipulation check main effect was significant, $F(1, 45) = 21.00, p < .001, \eta^2 = .32$, with participants in the closeness condition reporting that they felt closer to participants than in they did in the casual condition. There was no significant main effect of closeness [$F(1, 43) = .004, p = .95, \eta^2 = .00$] or sex of the interaction partner [$F(1, 43) = .14, p = .71, \eta^2 = .00$] on support for the fee increase for closeness. The interaction between sex of the interaction partner and closeness approached significance $F(1, 43) = 3.83, p = .057, \eta^2 = .08$. ANCOVAs were also conducted controlling for three variables. Experimental issues and future directions are discussed.

Keywords: persuasion, sex differences, interpersonal closeness, conformity

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Conformity and Persuasion: The Moderating Roles of Interpersonal Closeness and Interaction Partner Sex

The women's rights movement of the 1960s meant that women entered the workforce in great numbers in the United States and Canada (Burkett, 2020). Particularly since this major event, substantial research and attention have been paid to females in the workforce. The research itself suggests that a considerable amount of bias exists (Elsesser, 2016). As a result of this bias, women hold only 29% of the management positions in North America and represent 4.8% of CEO's in the Fortune 500 in 2018 (Female Business Leaders: Global Statistics, n.d.; Zarya, 2018). Women often seek strategies to improve their ability to be hired and promoted in organizations to overcome bias (Chatzky, 2018). This literature review offers insight into the limitations women might face regarding the two abovementioned issues. Research on sex differences has focused on women's perceived power in the workplace and small group settings (Bakina, 2013; Farley, Timme, & Hart, 2010) and these researchers concluded that women have less power (Cowan, Drinkard, & MacGavin, 1984). Nearly 80% of managers' daily time is spent communicating with other individuals, attempting to convince them to think or act in a certain way (Perloff, 2008), which is the crux of persuasion (Kruglanski & Stroebe, 2005). Thus, persuasion is an integral aspect of management positions and of the business world (Cialdini, 2007). Persuasion and influence abilities are core causes for promotion and management roles (Arruda, 2017; Ivy Exec, 2015). Persuasion is referred to as an emerging language within business leadership (Ready, Hill, & Conger, 2008) suggesting that it has increased in importance for businesses and hiring practices. It is clear that persuasive abilities are important to facilitate success in the workplace.

There exist differences between how men and women work, particularly concerning dissent and persuasion (Gardiner & Tiggemann, 1999). Research suggests that women are less tolerant of dissent than men, due to a greater preoccupation with self-presentation monitoring, in the service of conformity (Tuthill & Forsyth, 1982). Overarchingly, women tend to be less confident and to conform more (Cross, Brown, Morgan, & Laland, 2017). In contrast, men tend to act with more verbal aggression and tend to be more argumentative than women (Burgoon, Dillard, & Doran, 1983; Nicotera & Rancer, 1994; Jordan-Jackson, Lin, Rancer, & Infante, 2008). Research also suggests that men believe that they will receive better outcomes by acting aggressively (Marks, Hine, Manton, & Thorsteinsson, 2012). Additionally, it has been found that women are more persuasive when using some strategies and not others, preferring, for example, making polite requests instead of commands (Carli, 1990; Dolinska & Dolinski, 2006). A higher perceived risk of failure suggests that women must self-monitor more and may take fewer social risks when trying to be persuasive. In a study by Martell, Lane, and Emrich (1996), the researchers developed a computer simulation to model promotions in a company with equal numbers of men and women awaiting promotion. The simulation included gender bias in the model to simulate real-world events. The results revealed that a lack of promotions in the early phases of a woman's career has more negative effects for the rest of her career, like lower pay and fewer promotions. Therefore, it is clearly crucial that women must demonstrate persuasive abilities to attain the coveted executive positions in the workplace. There exists a gap in the literature detailing strategies that women can undertake to improve their persuasiveness. It is proposed that facilitating interpersonal closeness is one way that women could improve their persuasiveness, gain power, and improve their status in the workplace.

Persuasiveness, Power, and Success

Persuasiveness is strongly related to situational power (Arruda, 2017), which is important for success in the workplace (Cialdini, 2007). For instance, individuals who are seen as more powerful can be more successful in interviews. In a study, Lammers, Dubois, Rucker, and Galinsky (2013) found that merely by asking interviewees to hold in mind a personal experience in which they held power dramatically affected the impressions that interviewers had of them. Specifically, when participants were primed to appear more powerful, they were viewed as significantly more persuasive than their unprimed counterparts. This suggests that situational power is malleable and potentially coachable.

Many organizations exist with the sole mandate of empowering women as it regarded as an optimal strategy to advance women in the workplace (Fora Financial, 2019). As demonstrated by the lack of women in executive-level roles noted previously, women must be promoted to resolve this imbalance. Situational power not only improves an individual's chances of being hired into a firm, but it also can improve their ability to be promoted once in the firm (Arruda, 2017; Ivy Exec, 2015). More power results in holding more-favourable jobs, directly generating revenue for the firm, being compensated more, and with an increased probability of being promoted (Martin, 2019). As noted above, the percentage of women holding desirable high-paying, high-power roles is not representative of the percentage of women in the population.

Sex Differences in Persuasiveness

Persuasiveness is shown to differ between the sexes, with males being more persuasive than females (Carli, 1989). Differences between male and female persuasiveness may be due to several different factors, including differing encoding processes (Scott & Brown, 2009),

performance standards (Biernat & Kobrynowicz, 1997), and heuristic decision making (Martell et al., 1996).

A study by Scott and Brown (2009) examined sex bias as a product of social and categorical cues. The researchers hypothesized that participants would have greater difficulty associating women with leadership traits. The results confirmed the hypothesis as participants were slower to attribute leadership traits to females than to males. This finding suggests that gender bias exists in conscious and unconscious ways, creating a large hurdle for women to overcome to have power and be persuasive.

In addition, stereotypes of women's performance standards can obstruct others from objectively assessing performance and persuasiveness (Banaji, Hardin, & Rothman, 1993). For example, Biernat and Kobrynowicz (1997) found that, during interviews, women were expected to provide more examples of their skills. Increased evidence was deemed necessary to assess the ability of a female interviewee, relative to a similar assessment of male applicants. The results also revealed that men and women were rated more able to perform a role when it was sex-appropriate (e.g., Chief of Staff for males and Executive Secretary for females). In research by Carli (1990), females were also rated more harshly on their perceived competence, and females had to prove their competence more frequently than their male counterparts did. Stereotypes inhibiting accurate assessment of females give further reason to believe that many people assume females are less persuasive than males.

Research typically attributes the described perception disparity of female and male leaders to gender stereotypes of women being weaker and more likable when they are less masculine, (Johnson, Murphy, Zewdie, & Reichard, 2008), competitive (Hebl, 1995), agentic (Scott & Brown, 2009), and competent (Ho, Li, Tam, & Zhang, 2014; Bragg, Lim, Nash, &

Grise-Owens, 2013), relative to male leaders. Because the general category of “leader” is stereotypically considered a male domain (Brown, 1979; Zarya, 2018), it is believed that participants will be more likely to attribute the role of leader to male dissenters than to female dissenters and, thus, be more persuaded by male dissenters’ arguments. Furthermore, there exists a perceived incompatibility between the female sex role and the leadership role, (Eagly & Karau, 2002). Eagly and Karau (2002) proposed the role congruity theory, which states that the incongruity between the female gender role and leadership role leads to prejudice. One form of prejudice noted is the belief that the behaviour of a leader is incongruent with the behaviour of a woman. More specifically, this occurs because the traits expected for men align with expectations for leaders, as opposed to the communal qualities expected for women. The incongruity leads to prescriptive and descriptive biases (Burgess & Borgida, 1999; Eagly & Karau, 2002; Heilman, 2001) meaning people see a lack of fit between the feminine role and the leader role. This can lead to the conclusion that women do not possess the required traits to fill the leader profile.

H₁: Consistent with prior research on perceptions of female and male leaders (e.g., Brown, 1979), it is predicted in the present study that the main effect of dissenter’s gender will occur, such that participants will be more persuaded by male dissenters than by female dissenters.

Interpersonal Closeness and Persuasiveness

The age-old adage asks the reader: If a friend jumped off a bridge would the reader do the same? Accordingly, the idea that an individual’s behaviour and perception will be shaped by those around him or her is another prevailing notion in society. In general, friends, family members, and loved ones tend to be interpersonally close to one another (Gächter, Starmer, & Tufano, 2015). Furthermore, there is truth in the concept that friends and loved ones can have

enormous persuasive abilities. Previous studies have demonstrated that close others, like family members, are persuasive relative to non-supportive others (Thomas & Weigert, 1971). The results of the study confirmed the hypothesis that supportive others would induce conformity and thus be more persuasive than non-supportive others. A second hypothesis by Thomas and Weigert (1971) was supported which states that individuals display a high degree of conformity to authoritative others, such as a parent or priest. Interestingly, the study also found that conformity to fathers was consistently higher than conformity to mothers. The present research can add to these findings by investigating the mediating variable of gender as a proxy for authoritativeness. Authoritativeness is most associated with male leadership in the above studies and therefore a male counterpart may be seen as more authoritative than a female.

Biopsychological Processes and Closeness

Demonstrating a biological basis for the link between closeness and persuasion, evidence of this association can also be found in the biopsychological literature. Within interpersonal closeness exist multiple internal biopsychological processes affecting conformity, persuasion, and decision-making. This includes the secretion of various neurotransmitters, one of which is oxytocin. Oxytocin is a hormone and a neurotransmitter involved in childbirth and breastfeeding (Poulain, Oliet, & Theodosis, 2002). The hormone is also associated with empathy, trust, and the building and maintenance of social bonds, all components of closeness. With respect to the present experiment, research demonstrates that oxytocin plays a role in conformity and social cohesion, such that the intravenous administration of oxytocin led to a significant increase in acceptance of advice given, and increased the likelihood that a participant would conform to the advice of a perceived expert (Huang, Kendrick, Zheng, & Hu, 2015; Luo et al., 2017). In the research by Luo et al., it was found that oxytocin administration facilitated the acceptance of

social advice concerning everyday tasks if the individual trusted his or her interaction partner. Though the present researcher will not examine oxytocin itself, the experiments directly administering oxytocin offer valuable insights into internal processes closely related to interpersonal closeness. With the research taken together, it suggests that a gap in the literature exists in the relationship between interpersonal closeness and persuasion that the present study can address.

H₂: Participants who are made to feel close to the dissenter, will be more likely to agree with the dissenter on a contentious issue than participants who are not made to feel close to the dissenter.

Conformity and Persuasion

Of interest to the present researcher is the extent to which social influence determines an individual's attitude on a given subject. Attitudes can be defined as people's evaluations which can be expressed or privately held (Petty, Briñol, & Demarree, 2007). Conformity is described as a lack of independence, particularly when faced with group pressure. Research by Asch (1951;1956) demonstrated the power of group consensus on conformity. In these studies, in a group setting, participants were presented with a line projected on a screen and then were asked which one of a set of lines was the same size as the original. The researcher went around the circle of participants, each giving their response to the question of which line was the matching line. Unbeknownst to the participant, the other members of the group were confederates, all instructed to choose the same incorrect response. The participant was always asked to offer his opinion near the end. Despite the fact that the answer was very obvious, the majority of participants conformed to the group at least once by choosing the dominant, incorrect response. About one-third of participants consistently conformed to the majority view. Indeed, conformity

to the group's consensus is robust and replicable finding (Ross, Bierbrauer, & Hoffman, 1976; Kundu & Cummins, 2013; Mori & Arai, 2010).

Social norms theory describes behaviour that is influenced by perceptions of normal behaviour (Perkins & Berkowitz, 1986; Johnson, 2012). Social interactions involve intragroup processes which can increase the desire to increase group identification (Mackie, Worth, & Asuncion, 1990; Tajfel, 1982; Tajfel and Turner, 2004) and subsequently exert pressure to conform (Asch, 1956; Cialdini & Trost, 1998; Deutsch and Gerard, 1955). Intervention-based studies have demonstrated that when executed correctly, social norm strategies are persuasive and effective in eliciting behaviour change (DeJong et al., 2006; Moreira, Smith, & Foxcroft, 2009). To show that the effects resulting from social norms theory procedures can have immediate and lasting impacts on participant attitudes, research has demonstrated that both behaviour and perceptions can be modified by experimental manipulations (Hagman, Clifford, & Noel, 2007). The study by Hagman et al., (2007) used social norms to create a media campaign about drinking alcohol. The goal of the experiment was to reduce alcohol use by the participants in the experimental condition. Using one-on-one, group, and virtual sessions, participants were given data about national alcohol use and then engaged in a discussion of its effects. Participants were informed that on average, they had over-estimated average drinking rates of other students. Immediately following the intervention, attitudes toward alcohol and drinking significantly declined. The change in attitude was sustained over a week. This experiment suggests that social norms theory is an effective schema to evaluate the perceptions of individuals compared to those around them. Interestingly, this study compared lecture-based and computer-based methods which were not significantly different. This suggests that online group communications are an effective replacement for in-person group communication, as is done in the present experiment.

The present study incorporates social norms theory as I seek to understand competing peer influences from both the interpersonal closeness manipulation, in contrast with existing social norms of sex bias, and conformity pressure.

Although the main effects are predicted for both sex of dissenter and closeness, I believe that the effects of sex will be moderated by participants' level of felt closeness to the dissenter. Previous research has demonstrated that individuals' decision-making processes are different when thinking about someone close (e.g., close friend) compared to someone less close (e.g., stranger) (Sip, Smith, Porcelli, Kar, & Delgado, 2015). Additionally, the neurobiological processes of closeness have been shown to influence individuals' persuasiveness on others, such that others are more willing to accept social advice from people they feel closer to (Luo et al., 2017). This suggests that feelings of closeness may alter relationship schemata, affecting how individuals perceive those they are close to (relative to those they are not close to). It is believed that consistent with these findings, the closeness procedure will alter participants' schemata about the dissenter, from the gender-schema to the friend-schema. Therefore, it is possible that once participants are made to feel close to the dissenter, they will be less likely to rely on the gender-based stereotypes for their decision-making processes and more likely to rely on the motive to protect a valuable friendship.

H₃: Participants who are not made to feel close to the dissenter will be more persuaded by male dissenters than by female dissenters. Participants who are made to feel close to dissenters will be equally persuaded by male and female dissenters.

Method

Participants

There were 48 participants in this study. One was excluded due to incomplete data, so data from the remaining 47 were used for the analysis. There were 18 males and 29 females from a Huron University College in London, Ontario, Canada. Participant ages ranged from 18 to 26 ($M = 19.5$, $SD = 1.78$). The participants were all undergraduate students enrolled in an introductory psychology course at the college, recruited through the online research participant pool.

Study Design

The present study is a 2 (sex of interaction partner: male vs. female) by 2 (closeness: close vs. not close) between-subjects design, and the dependent variable is the degree of support for a proposed controversial issue. The issue, fabricated for the purposes of the study, was an increase in mandatory student public transit fees from the current \$262.92 to \$350.60 to fund an increase in bus frequency. Participants publicly declared the extent of their support in a group chat and then privately rated the extent of their support in a survey.

Materials and Procedure

Participants were invited to take part in a study about decision-making in a group context (Appendix A). Participants signed up to posted timeslots through the online research sign-up system, SONA, and were informed participation would require about 50 minutes.. The experiment was conducted in a small laboratory room in the Psychology Department . Participants were randomly assigned using a random number generator to one of four conditions, either interacting with a female or a male partner, and either in the closeness or the casual condition. Participants were distributed as follows: the male closeness condition ($N = 12$); the

male casual condition ($N = 13$); the female closeness condition ($N = 11$); and the female casual condition ($N = 11$).

Phase 1

Participants were met in a designated waiting area, along with a confederate who was, ostensibly, one of the other study participants. The participant was escorted to the laboratory room, sat in front of a computer, and was then asked to read a letter of information (Appendix B) and indicate consent as the experimenter followed a script (Appendix C). The experimenter left the room while she set the “three other participants” up in a separate room, which was really just occupied by the confederate. Real confederate sex was not matched to randomly-assigned chatroom confederate sex. Male and female confederates sometimes played an opposite-sex role in the chatroom. The letter of information and consent were administered via Qualtrics online survey software, as was the rest of the data collection (Qualtrics, Provo, UT). The researcher returned to the laboratory room after a 1-minute delay. After participants gave consent to take part in the study, the researcher explained what was to be asked of them, including an introduction to the discussion issue. To add an artificial sense of importance for the discussion, participants were told that their feedback regarding the proposed fee increase would be shared with the City of London for decision-making purposes. This was done in an attempt to mimic real decision-making processes. Participants were reminded at this point, and at the outset of each chatroom, that they could quit the study, or refuse to answer a question, at any time without penalty. Before the group issue discussion, participants were told that they were going to be randomly assigned to have an interaction with one of the three other group participants, to help get to know that person a little bit better. The participant was always paired with the confederate, playing the role of Jack (male condition) or Laura (female condition).

Participants were navigated into the private online chatroom program (Chatzy, n.d.). The experimenter left the room, and then played the role of the chat moderator. It was during this discussion, between the participant and the confederate, that participants' level of closeness to the dissenter was manipulated. Participants underwent a modified version of the Closeness Task or the Casual Task within the Relationship Closeness Induction Task (Aron, Melinat, Aron, Vallone, & Bator, 1997; Sedikides, Campbell, Reeder, & Elliott, 1999) depending on the assigned condition. These tasks are shown in Appendix D. The moderator asked the questions and ensured that participants understood the instructions. The goal of the closeness task was to facilitate feelings of interpersonal warmth between two partners assigned to the closeness condition. The goal of the casual task was to act as a control condition for partners assigned to the casual condition using the same number of questions but without the intent of fostering closeness. The confederate answered the first question, followed by the participant's response. The next question was first answered by the participant, followed by the confederate's response. Partners took turns answering questions first for the remainder of the task.

After the task was complete, the experimenter reentered the room to navigate the participant to the two-item closeness manipulation check, again administered through Qualtrics, and then exited. The first item was the Inclusion of Self in Other Scale (Aron, Aron, & Smollan, 1992) (Appendix E) which presents the participant with a series of seven progressively overlapping circles (one representing the self, the other representing the interaction partner) and asks participants to select the one that best represents how they feel about the overlap between themselves and their partner. The second item was a seven-point scale item asking participants to rate how close they felt to their interaction partner relative to other relationships, from "*not close at all*" to "*very close*" (Berscheid, Snyder, & Omoto, 1989). After the participant had completed

the manipulation check, the experimenter entered the room to navigate the participant to the group discussion chat through Chatzy with, what participants were led to believe, was three other participants and a moderator (Chatzy, n.d.). The experimenter then exited the room. The statements by the two “other participants”, Sarah and Ben, were also controlled by the confederate.

Phase 2

The moderator of the group chatroom introduced the issue of the proposed fee increase and instructed the order in which individuals shared their thoughts (Appendix F). The first two to share were the two imaginary participants with whom the actual study participant did not interact. Both were against the fee increase. Next, the participant’s interaction partner was invited to share his or her thoughts and was always in favour of the fee increase. The participant was then the last of the four in the group to be invited to voice his or her opinion about the fee increase. The experiment mirrored certain aspects of the Asch (1951) experiment and the adaptation by Mori and Arai (2010). The adaptation by Mori and Arai (2010) confirmed that social pressure influenced participant responses on visual perception tasks, causing certain participants to consciously provide a wrong answer. Once all members of the group had expressed their opinions, the moderator ended the chat. The experimenter then entered the room to open the final survey for participants to complete (Appendix G). The post-interaction survey included 17 questions. The first question was the main dependent variable on which participants indicated the extent to which they support the fee increase on a scale from 1, *completely disagree*, to 7, *completely agree*. Participants then rated their usage of transit and perceptions of tuition increases. Next, participants completed the Fare Increase Sentiment Scale. Participants then rated the extent to which they felt they had a choice in their decision in the group chat.

Finally, participants completed demographic items, including sex, age, and year of study.

Participants were then thanked and debriefed with the option to meet the confederate (Appendix H).

Covariates

Three items from the post-interaction questionnaire were used as covariates. The experiment's small sample size increased the potential impact of chance differences, which made it important to reduce error variance. The first item was the participants' likely use of the new transit service. Broadly, it is assumed that an individual who would be particularly enticed to use the new transit services would approve of the fare increase more than an individual who is not, with the rationale that the fee increase would lead to better service options. The second covariate was the extent to which participants believed they were impacted by tuition changes. Many undergraduate students do not pay their tuition themselves and therefore may not feel that their finances are impacted by fee increases (Financial Consumer Agency of Canada, 2019). Financial dependence or independence was expected to widely predict the extent to which a participant would approve of a fare increase. The third covariate was the Fee Increase Sentiment Scale. The Fare Increase Sentiment scale was found to be a reliable measure with a Cronbach's alpha score of 0.91, indicating a high degree of internal consistency. The scale was included for similar reasons as stated above as it is important to control for participant views of the proposed transit fee.

Results

Manipulation Check

Two manipulation check items were included to test whether the closeness manipulation was effective, as described in Appendix E. The composite score was used to measure the

manipulation. An independent samples t-test was conducted to assess if the closeness condition affected the participant's result on the closeness assessment. The analysis revealed a significant effect, $t(50.45) = 5.26, p < .001$, with participants in the closeness condition ($M = 3.53, SD = 1.18$) reporting greater self-integration with the interaction partner than participants in the casual condition ($M = 2.10, SD = 0.84$). Levene's test indicated unequal variances ($F = 5.28, p = .03$) so the degrees of freedom were adjusted from 53.00 to 50.45. The closeness manipulation appears to have had the intended effect on participants.

Correlations for Variables

The present experiment was designed to assess the behaviours of participants in a real-world scenario. Due to this, it was important to control for variables that might have a real effect on a participant's decision. Three items were significantly related to the dependent variable, including likely use of new services, $r(40) = .41, p = .005$, perceived tuition impact, $r(40) = -.30, p = .042$, and scores on the Fee Increase Sentiment Scale, $r(40) = .83, p < .001$. These data are shown in Table 1. As variables were highly correlated to the dependent variable, an analysis with control variables was conducted.

Factor	Agreement	Likely Use	Tuition Impact
Likely Use	.41**		
Tuition Impact	-.30*	-.17	
Fee Increase Sentiment Scale	.83***	.45**	-.32*

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 1. Pearson's r and Significance Levels for Likely Use, Tuition Impact, and Fee Increase Sentiment Scale.

ANCOVA¹

An ANCOVA was conducted to assess the impact of controlling for the abovementioned variables, as shown in Figure 1. Of the covariates, likely use, $F(1, 40) = .34, p = .55, \eta^2 = .01$, tuition impact, $F(1, 40) = .88, p = .35, \eta^2 = .02$, were not significant. Fee Increase Sentiment Scale, $F(1, 40) = 57.57, p < .001, \eta^2 = .59$, was significant. The main effect of sex of interaction partner was not significant, $F(1, 40) = .02, p = .896, \eta^2 = .00$. Using the estimated marginal means, participants with a male interaction partner ($M = 3.41, Standard Error = .29$) were not significantly different than participants with a female interaction partner ($M = 3.37, Standard Error = .32$). The main effect of closeness to interaction partner was not significant $F(1, 40) = .59, p = .459, \eta^2 = .01$. Participants in the closeness condition ($M = 3.27, Standard Error = .31$) did not significantly differ from participants in the casual condition ($M = 3.50, Standard Error = .30$). A significant interaction effect occurred, $F(1, 40) = 4.95, p = .032, \eta^2 = .11$. However, Tukey's post-hoc tests indicated that none of the simple main effects were significant, with all p -values above .05.

Exploratory Analyses

To explore the differences of closeness further, several exploratory analyses were conducted. First, sex differences in closeness were assessed. Incorporating participant sex and interaction partner sex, the extent to which participants felt close to their interaction partner differed by sex condition, $F(1, 42) = 5.33, p = .026, \eta^2 = .10$. Participants with a female partner

¹ Since the study used multiple confederates, analyses were conducted to assess whether experimenter effects were a possible confound. Due to confederate availability, for some trials of the experiment, no confederate was used. There was no significant difference between the confederate conditions, $F(3, 43) = .17, p = .91, \eta^2 = .01$, and thus this issue will not be discussed further.

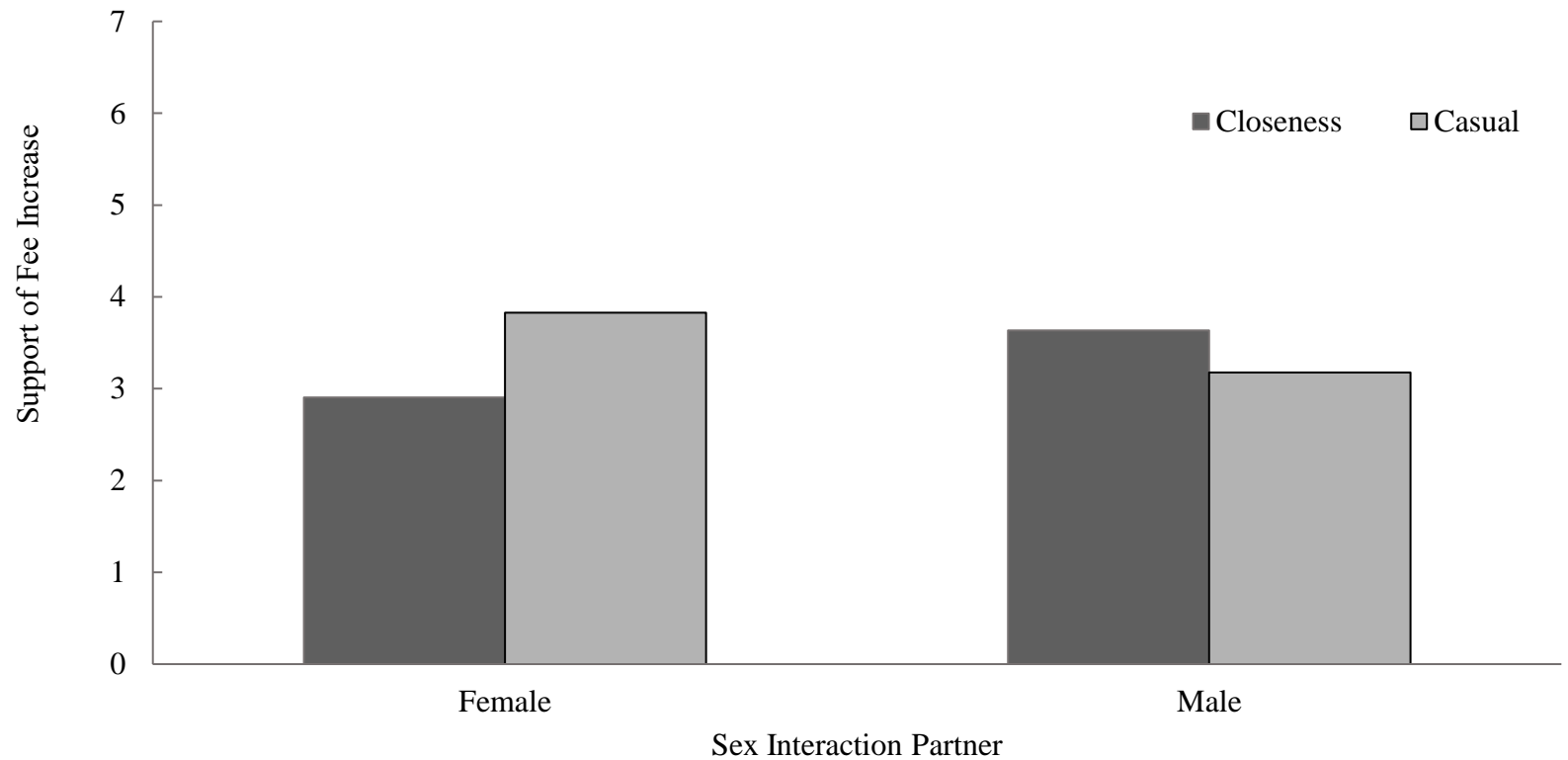


Figure 1. Results of ANCOVA with the estimated marginal means of fee increase support as the dependent variable.

Covariates appearing in the model are evaluated at the following values: Likely Use = 4.62,

felt significantly closer to her ($M = 3.28$, $SD = 1.47$) than participants with a male partner ($M = 2.37$, $SD = 1.09$). Analyzing the effect of participant sex, there was no significant main effect of participant sex on levels of closeness, $F(1, 42) = 0.71$, $p = .40$, $\eta^2 = .01$. Male participants did not differ in reported levels of closeness ($M = 2.99$, $SD = 1.24$) than female participants ($M = 2.66$, $SD = 1.32$). A significant interaction effect emerged, $F(1, 42) = 4.58$, $p = .038$, $\eta^2 = .09$, where post hoc independent samples t-tests indicated that male participants felt significantly closer to female interaction partners ($M = 3.88$, $SD = 1.55$) than with male interaction partners ($M = 2.11$, $SD = 0.93$), $t(23) = 2.81$, $p = .037$, $d = 1.17$.

Finally, public and private support of the fee were assessed. A one-tailed independent samples t-test was conducted to compare the two. Public support of the fee was significantly related to private support levels, $t(45) = 4.64$, $p < .001$, $d = 1.43$. Public support was scored as a 1 for support and as a 2 for oppose, as rated by the experimenter. Participants who publicly supported the fee increase had significantly higher private support of the fee ($M = 4.81$, $SD = 1.60$) than participants who publicly opposed the fee ($M = 2.65$, $SD = 1.47$). There were 16 participants publicly in favour of the fee increase and 31 students against it.

Discussion

The present study assessed the persuasiveness of a dissenter under different conditions. Four experimental conditions were created by manipulating sex of an interaction partner, male or female, and closeness with an interaction partner, close or casual. Participants underwent a closeness or casual manipulation with an interaction partner in a private online chatroom. After the interaction, participants rated their perceived closeness to their partner on two questions. Participants were then entered into a group chat with their interaction partner and two other “confederates” to share their thoughts about a mandatory fee increase. After the first two

confederates did not support the fee increase, the interaction partner supported the fee increase. The participant was asked to share his or her thoughts last. The dependent variable of the experiment was the first question of the post-interaction questionnaire on which participants rated the extent of their support of the fee increase. It was assumed that the baseline attitudes of all undergraduate students would be against fee increases, based on other experiments exploring fee increases (Miller, Jorgenson, Nickerson, & Pitas, 2018). Thus, any support of the fee increase, had it occurred, would have been assumed to be caused by the persuasiveness of the interaction partner in the second phase of the experiment. Three variables, including the likelihood of use of new services, perceived impact by tuition increases, and general attitudes toward the transit commission were controlled as covariates in subsequent analyses.

The original hypothesis is susceptible to variances in participant factors. Thus, the ANCOVA conducted allowed the experimenter to control for such variances. The three variables which significantly correlated with the participant's support of the fee increase were: the likelihood of using the proposed services, perceived tuition impact, and Fee Increase Sentiment Score. Individually, each factor would reasonably influence a participant's view of a fee increase as described. As such, it was important to control for such variances and run subsequent analyses.

The results of the study demonstrated no significant difference in the persuasiveness of the dissenter when the dissenter was male or female (H_1). Within this hypothesis, the present experiment approximated the male sex to be more authoritative than female sex. The results of H_1 does not support the findings of Brown (1979) who found sex-based differences in persuasiveness. One distinction between the present study and the research of Brown (1979) is that the dissenter took on a peer role here as opposed to a leadership role as had been the case in

the research carried out by Brown. The results demonstrated in the research by Brown (1979) and Eagly and Karau (2002) may only emerge when the dissenter is female and in a leadership position, as opposed to being in a peer position. The same explanation could be made for the research reported by Thomas and Weigert (1971). In the experiment by Thomas and Weigert, the manipulation also specified that the female was in a leadership position. Thus, the approximation between sex and authoritativeness made in the present study was not supported by the results of H₁. Future research could better align with the existing literature by casting the confederate in a leadership position.

Differences between male and female dissenters may also not have been effective due to the use of scripted responses. The responses were written by the researcher, a woman, and were intended to be relatively sex-neutral to increase the extent to which they could be used for both the male and female conditions. Because of this, the sex differences that were the intended manipulation may not have emerged as intended. If the scripts had been uniquely competitive, agentic, and masculine for male dissenters in tone and content, and the opposite for female dissenters, the differences may have emerged following previous research (Johnson et al., 2008; Hebl, 1995; Scott & Brown, 2009; Ho et al., 2014; Bragg et al., 2013). On the other hand, the use of nearly identical scripts allowed me to control for differences in such factors as attitudes toward specific topics and personality. Participants were then allowed to use his or her archetype of males and females based on the common female (Laura) and male (Jack) names used for the confederate. It is unclear if the use of nearly identical scripts helped or hurt the vividness of sex differences. Future experimenters should use post-experiment manipulation checks to ensure participants were aware of the sex of their interaction partner. Pretesting could offer insight into this issue as well.

The main effect of sex of interaction partners may not have arisen because women in the present research were not facing the same serious issues that were present in the studies by Brown (1979), Cowan et al. (1984), or Carli (1989). Despite sex inequality still existing today (Female Business Leaders: Global Statistics, n.d.; Zarya, 2018), perhaps the way in which bias is expressed has evolved over the last 50 years. Specifically, experiments using small group settings may no longer elicit as much bias against women (Badke-Schaub & Frankenberger 2002), and instead, generate a bias in favour of women (Tucker, 2014). This suggests a disconnect between real-world behaviours and those in experimental simulations. Future experimenters should utilize field experiments and real-world measures to assess the state of sex biases, particularly in the workplace.

The results did not support the hypothesis that participants in the closeness condition would be significantly more persuaded than participants in the casual condition (H₂). This is not consistent with the findings of Huang et al. (2015), or those of Luo et al. (2017). Those studies demonstrated that oxytocin could play a role in conformity and social cohesion. The manipulation check demonstrates that feelings of interpersonal closeness, which may have been accompanied by releases of oxytocin, occurred as expected. The findings by Luo et al. (2017) may not apply to the present study as casting a vote in fee changes is not an everyday task for most students, and participants may not have trusted their interaction partner enough for the effect to emerge. This is particularly likely due to the overall low levels of closeness reported by participants in all conditions, as compared to those reported in other studies (e.g., Aron et al., 1997). These two attributes, everyday tasks and trust of the interaction partner may be two necessary factors to achieve the same results as those reported by Luo et al. (2017). The hope that feelings of interpersonal closeness as manipulated in the present experiment would involve

the release of oxytocin may not have been realized. Thus, oxytocin may be linked to conformity, but the conditions of the present experiment may not have been sufficient to reveal its effect.

Future experimenters might consider assessing levels of trust as well.

Additionally, the results with respect to H₂ do not explicitly support the findings of Sip et al. (2015) which were that decision-making processes differ when thinking of someone close compared to someone less close. In actuality, the decision-making process of participants may have differed, but was not captured by the post-interaction questionnaire. Some participants, after being debriefed, expressed to the researcher that they were concerned about hurting their interaction partner's feelings, and did not want to disturb the freshly-established relationship. Future researchers might better capture feelings of ambivalence by directly asking participants the extent to which they wanted to preserve the new friendship and how it affected their decision-making process. Another reason the hypothesized effect of interpersonal closeness may not have occurred is that a short interaction may not have been long enough to facilitate deeper feelings of interpersonal closeness like a longstanding relationship, as suggested by the mean closeness ratings. The typical overall feelings of interpersonal closeness in the study were below the scale's mid-point, below 3.50. Feelings such as loyalty, dependence, and commitment are unlikely to be generated through this manipulation and are a known limitation (Aron et al., 1997). To mitigate this issue, future research could find pairs of friends or colleagues and randomly assign one participant to be the confederate, acting as themselves.

The third hypothesis was a culmination of the literature which informed both H₁ and H₂. The final hypothesis stated that participants who are not made to feel close to the dissenter will be more persuaded by male dissenters than by female dissenters. After controlling for the three variables, a significant interaction between sex condition and closeness condition emerged,

although none of the post hoc Tukey tests were significant. The first half of H₃ was not supported by the results, while the second half was. The second half stated that participants in the closeness condition would be equally persuaded by either male or female partners. There was no significant difference between the participants in the closeness condition with male or female partners. It is not possible, however, to use non-significant data to support a hypothesis.

The exploratory analysis of the closeness rating offers an interesting finding. Overall, participants felt significantly closer to female confederates than to male confederates. This may be due to gender stereotypes of females, wherein participants felt greater interpersonal warmth from female confederates than from male confederates (Eagly & Mladinic, 1989). This was not surprising as the confederate script was friendly, warm, and inviting. The coherence between the script and gender stereotypes may have proved to be particularly authentic when delivered by a female confederate. The interaction effect demonstrated that male participants felt significantly closer to female confederates than male confederates. Males, expecting their female counterpart to be caring, nurturing, and accepting, may have found the interaction particularly pleasant as the confederate script adhered to these gender stereotypes. This could be emphasized by prevalent feelings of loneliness in young males today in conjunction with a strong desire for romantic relationships (Knox, Vail-Smith, & Zusman, 2007), assuming that the majority of male participants were attracted to females, following national averages (Statistics Canada, 2017). Male participants may have been seeking interpersonal closeness to a greater extent than female participants, thus accounting for the sex difference.

Future researchers could build on the present research to demonstrate that interpersonal closeness can be effectively established via chatrooms, but it is significantly lower than the original in-person experiment. The original interpersonal closeness manipulation by Aron et al.

(1997) found an average interpersonal closeness score of 3.82 on the IOS scale. The present study had a lower average IOS score ($M = 2.85$, $SD = 1.29$), which was found to be significantly lower using a one-sample t-test, $t(45) = -5.20$, $p < .001$. This makes sense as participants in both the closeness and casual conditions would be unable to read the body language of his or her interaction partner, which is an important factor in establishing relationships (Xu, 2012). Considering sex differences in closeness ratings and the high rates of loneliness and suicide in male youth, feelings of interpersonal closeness could improve mental health outcomes (Suicide Statistics, 2019; Covarrubias & Han, 2011). This suggests that males who spend a predominant amount of time interacting with others online may benefit from migrating relationships to be face-to-face. The high rates of loneliness across digital-media obsessed youth may be due to the inability of humans to generate the same feelings of interpersonal closeness online (Ryan, Allen, Gray, & McInerney, 2017). The findings of the present experiment could also be used to support the research on how to care for young men in particular. Perhaps nurses, psychologists, and other healthcare providers could coach young males to foster interpersonal closeness, facilitating positive mental health outcomes. Participants were expected to be familiar with chatrooms and online relationships as they were primarily first-year undergraduates. Future research can use this finding to state that, although interpersonal closeness can occur online, this forum produced significantly lower feelings of interpersonal closeness than in-person interactions. This study could be used to investigate the mental health of young people, who spend a large portion of their free time online (Paediatric Society, n.d.).

Assessing the study broadly, the statistical power of the study was low due to a small number of participants. An increase in the number of participants could have resulted in statistical significance, particularly for the interaction of follow-up analyses. Another potential

issue with the present study is that the experimenter is a prominent figure in student government on the small university campus. Due to this, most students in the experiment were acquainted with the experimenter or had a relationship with her. This may have caused participants to act more “formally” in the chatrooms, and be wary that the researcher could be adjudicating the responses. Also, many participants knew she was an advocate for lower student fees and may have felt that there was a correct answer, despite efforts to keep the experiment neutral and ambiguous. Future iterations of this study should use a more neutral experimenter, who is not overly well-known on campus.

Future studies could include additional questions in the post-interaction questionnaire to explore other areas. At a minimum, the experimenter aimed to address differences in sex perceptions. The researcher could have covertly asked participants, after interacting with their partners, how they felt about taking advice from men or women. Participants could interact with multiple partners in one session, and be persuaded by them on various topics. This study could be approached from an intersectional lens as well, incorporating race, age, and socioeconomic status as variables that could alter an individual’s persuasive power.

As a note about the overall experimental design of the study, it is difficult to assess if the findings support those of Asch (1951; 1956), any recreations of his studies or the social norms theory (Perkins & Berkowitz, 1986; Johnson, 2012) as there was not a control group that did not receive any persuasion attempts. Future experimenter should create control conditions to isolate the impact of the group chat portion and the overall effects of persuasion.

The present experiment involved judgments by the experimenter to determine if a participant’s group chat message supported or opposed the fee increase. The original experiment did not include the comparison between public and private measures of support and thus did not

have appropriate measures in place. The experimenter read each message and categorized it by the broad tone of the message. Future experimenters should use inter-rater reliability to increase the robustness of this measure. Alternatively, future experimenters could use natural language processing code.

Lastly, it is important to note the use of deception in the present experiment. The experimenter used deception on several fronts which was not ideal for a couple of reasons. First, participants could have been distressed by the process. Only one participant expressed he was unhappy to learn that he had been deceived, but only regarding the fabrication of the bus pass fee increase. When designing the experiment, my advisor and I had assumed that participants would be more upset about the fact they had been interacting with confederates as opposed to other students. The purpose of deceiving participants was to create real-world pressure, which I believe occurred. Many participants, upon being debriefed, explained that it was very difficult for them to make a decision and expressed that the relationship-preserving bias for their interaction partner influenced their support decision as intended. For the most part, participants were very surprised to learn about the fabricated portions of the study. Experiments using deception, however, potentially harm the integrity of psychological studies in general as participants leaving my study may possess great skepticism for psychological studies moving forward. Iterations of the present experiment could use other participants instead of confederates. Participants could be given different information from each other in the priming phases and would replace the confederate by being strongly in favour of the fee increase. In addition, experimenters could use real-world issues for the participants to discuss, as opposed to fabricated transit fee increase. The real-world issue would have to be one that participants do not know much about, and their familiarity with the subject should be controlled for. Future experiments

should create conditions that capture real-world decisions of participants, without the use of deception.

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Appendix A

SONA / PARTICIPANT POOL RECRUITMENT

Study name: Understanding interpersonal processes involved in decision-making

Study type: Standard (lab) study

Duration: 50 minutes

Credits: 1

Abstract: The goal of this study is to understand the interpersonal factors involved in decision making. To examine this, participants will be asked to discuss an issue in a group setting (groups of 4). Prior to the group discussion, each participant will be assigned to get to know one of the other group members better, then answer some questions about that interaction. Following the one-on-one interaction, participants will then engage in the group discussions and then answer some questions about the process. All interactions will be conducted in an online, chat-based program.

Appendix B



LETTER OF INFORMATION

LETTER OF INFORMATION

Attitudes and Interpersonal Closeness

This study is being conducted by Christianne Morrison, a 4th year honours thesis student in the Department of Psychology, under the supervision of Dr. Glen Gorman. The study in which you are being asked to participate examines how interpersonal factors influence group decision-making processes.

About the study

If you agree to participate, you will be asked to interact with one or more participants via a chat program. As part of the study you will also be asked to express your opinion about an issue relevant to undergraduate students. You will be asked to report your feelings about the interaction with the other participant. This study will take approximately 40 minutes in total.

First, you will interact with a partner. Then you will answer a series of questions. Next, you will interact with a group of other individuals where you will discuss a topic. You will then answer a series of questions. After that, you will be debriefed.

Important Information Related to Your Participation

There will be just one session for this experiment. The study will not take more than 40 minutes of your time. Participation is voluntary and you may refuse to participate, refuse to answer any questions or withdraw from the study at any time. A refusal to participate will have no adverse consequences on your school grades or status. Please be aware that if you complete a survey and leave the study session, then decide that you would like to withdraw from the study, your data is impossible to individually delete as it is not tied to you. Because of this, any complete data sets will be used in the analysis.

Confidentiality

All information and data provided by you will remain confidential. You will not be identified in any reports of this study. In addition, your responses will be anonymous. Your professors or classmates will not see your responses. **However, it is important to note that due to the small nature of Huron, you may know the experimenters or other participants.** In this case, it is possible that anonymity cannot be guaranteed.

Your responses will be identified with a number and will not be linked with your name in any way. The responses that you provide will only be used for research purposes. All data collected from the study will only be accessible by the authorized researchers and will be stored electronically in a secure location in the Psychology Department at Huron University College for a minimum of 5 years. Any data reported from this study (e.g., conference presentations or publications) will be reported in the aggregate.

Risks, Costs and Benefits to You

It is possible you might be uncomfortable or embarrassed about answering personal questions on the survey. Some questions asked are quite personal but not outside of what you may experience in your day to day life and ask that you open up in the chat room. Participation in the study is voluntary. You will not be required to answer any question that makes you uncomfortable. You may refuse to participate, refuse to answer any questions, or withdraw from the study at any time with no effect on your school involvement. You will also be given the contact information for the researchers in case you have any additional concerns and/or questions. Although not anticipated, you will also be provided with counselor contact information should any negative affects from this study persist.

You can withdraw from the study at any time, including during the online chatroom. Or, you can skip individual questions that you would not like to respond to. To skip a question, type “skip” into the chatroom. The chatroom includes two rounds of questions. If you would like to skip to the end of a question round, you can simply type “skip to the end of questions”.

We think that you will enjoy participating in the chatroom as it is an opportunity to explore your own thoughts and feelings. This research may provide significant social and scientific benefits through the knowledge that will be gained about how individuals change the way they make decisions after engaging in interpersonal interactions.

Other Information

Your participation in this study does not require you in any way to participate in any future research at Huron University College or at The University of Western Ontario.

If you are interested in participating in our research project or would like to learn more about the study, please contact Christianne Morrison at cmorr25@uwo.ca.

Thank you for your time and interest in our research project. This letter is yours to keep for future reference.

Contact information:

Christianne, Honours Thesis Student

Email: cmorr25@uwo.ca

Dr. Glen Gorman, Honours Thesis Advisor, Department of Psychology

Email: ggorman3@uwo.ca

Office: HUC V117

If you have any questions about your rights as a research subject, you may contact the Department of Psychology, Huron University College

- I give consent to participate.
- No, I do not give consent to participate.

Appendix C

EXPERIMENTER SCRIPT

1. Hi, welcome to the study. We already have the other participants ready to go so we will just set you up and get going once you're ready. Today you will be taking part in a study about decision making in a group context. You will first read the letter of information and sign the consent form. These two forms are housed on a server called Qualtrics which will randomly assign you a participant ID number. This number means that your responses can never be linked back to you. Anonymous participant ID numbers are a standard procedure in psychology experiments and it is important to keep participants as anonymous as possible. Then you will be assigned to one of the other 3 participants to have an discussion with in a chatroom. You will each answer a series of questions and you should alternate who answers each question first. You will then be asked to answer a few short questions about that interaction. Next, you'll enter a chat room with all three participants and a moderator, where you will read about an issue that we have been asked to collect student feedback on the potential fee increase. Your responses will be shared with the City of London to help inform their decision. After the chat, you'll be asked to answer some questions about your decision making process. Do you have any questions?

[Answer any questions. Navigate the participant to the Letter of Information and consent form to sign. Connect the participant with their interaction partner in Chatzy]

2. [Once the chat is done] Ok, now that you are done chatting with the other participant, you will need to fill out this short survey. [open closeness manipulation items in Qualtrics for the participant] I'll come back into the room in three minutes and you can take more time if you need it. [leave the room to wait outside]

3. [Reenter the room after 3 minutes] Are you done? Now that you're done the first survey, we will be putting you into a chatroom with some other participants as well and you will discuss a topic about the London Transit Commission.

[Connect participant with the group chat session on Chatzy]

4. [Once the chat is done] Now that you are done chatting in the group setting, you need to fill out this short questionnaire. [Open post-chat questionnaire in Qualtrics for the participant] I'll come back in 5 minutes and you can have more time if needed.

[Leave for 5 minutes]

5. Are you done? Thank you for participating in this study. The purpose of the study was to investigate the impact of interpersonal closeness on persuasion and conformity. First, you underwent either an interpersonal closeness or neutral condition with "another participant" who was in-fact not a participant but instead a confederate, or actor, who is part of the study. If you would like, you can meet this person now.

This closeness procedure was an adapted version of an established closeness induction task, “The Experimental Generation of Interpersonal Closeness”, by Aron et al. (1997) and Relationship Closeness Induction Task (Sedikides, 1999). The task is believed to create a higher sense of closeness with the interaction partner in the close condition than in the neutral condition. We also randomly assigned you to believe you were interacting with a male or a female interaction partner. You were then connected to a chat room with 3 other students and a moderator where each of you were asked to read about a fee increase that the City of London was proposing and asked to provide your thoughts on the proposed increase, along with whether you supported the increase or not.

However, this chat was also fabricated and you were interacting with only the confederate in the chat as well. For all of our participants, their interaction partner argued for the proposed increases, whereas the other two chat partners argued against. The reason why we did this, is to see whether participants would be more willing to go along with the arguments of someone they felt close to, compared to someone they were not made to feel close to, particularly in a public forum. We are also interested in seeing whether the gender of the interaction partner made them more persuasive or not. Also, be assured that the London Transit Commission is not planning on increasing fees next year to pay for extra bus routes. This was also made up for the study.

In the final part of the study, you completed a post-interaction questionnaire that assessed your interaction with the confederate and then assess your degree of support for the proposed increase, along with some demographic information. If you have any questions you can contact Christianne or Dr. Gorman and their contact information is provided in your debrief letter.

As you may or may not be familiar, deception is not regularly used in psychological experiments. All measures were taken to reduce the amount of deception used in this experiment. The experimenters work with the Research Ethics Board at Huron, which follows guidelines set by higher ethics bodies. Research at Huron goes through many steps to ensure the safety and comfort of participants. Deception was deemed to be necessary for the present experiment for three reasons. The first was to induce closeness with another person, but to ensure that each participant had an identical experience with the other person, the other person had to have a script, which meant they would be a confederate or in other words, a research assistant. Secondly, as this was a study was about persuasion, participants could not know the real purpose of the experiment, or else it would hurt the integrity of the experiment. Third, the experiment needed to gauge the participants’ view on an issue that would impact them. To take away any extraneous information, a problem (the LTC bus pass fare increase) was fabricated.

Appendix D

CHATROOM 1: MODERATOR SCRIPT**Condition 1 (Closeness)**

You will now be asked some questions to help you get to know your partner better. You each will take turns answering the questions first. Remember, at any time, you may withdraw from the study and you do not have to answer every question. To indicate that you would like to skip a question, please type “skip” into the chatroom. You may also skip to the end of the first question period at any time. To do so, type “skip to end of first question period” into the chatroom.

Set 1

1. Would you like to be famous? In what way?
2. What would constitute a “perfect” day for you?
3. Do you have a secret hunch about how you will die?
4. Name three things you and your partner appear to have in common.
5. For what in your life do you feel most grateful?
6. If you could change anything about the way you were raised, what would it be?
7. Take four minutes and tell your partner your life story.

Set 2

1. If a crystal ball could tell you the truth about yourself, your life, the future or anything else, what would you want to know?
2. Is there something that you’ve dreamed of doing for a long time? Why haven’t you done it?
3. What is your most treasured memory? What is your most terrible memory?
4. If you knew that in one year you would die suddenly, would you change anything about the way you are living? Why?
5. Alternate sharing something you consider a positive characteristic of your partner. Share a total of 5 items.
6. How close and warm is your family? Do you feel your childhood was happier than most other people’s?
7. How do you feel about your relationship with your mother?

Set 3

1. If you could have one wish granted, what would that be?
2. Is it difficult or easy for you to meet people? Why?
3. Describe the last time you felt lonely.
4. What is one of your biggest fears?
5. Tell your partner something you like about them already.
6. What, if anything, is too serious to be joked about?
7. What is one thing about yourself that most people would consider surprising?

8. Share a personal problem and ask your partner's advice on how he or she might handle it. Also, ask your partner to reflect back to you how you seem to be feeling about the problem you have chosen.
9. What is your most frightening early memory?
10. What is your happiest early childhood memory?

Condition 2 (Casual)

You will now be asked some questions to help you get to know your partner better. You each will take turns answering the questions first. Remember, at any time, you may withdraw from the study and you do not have to answer every question. To indicate that you would like to skip a question, please type "skip" into the chatroom.

Set 1

1. When was the last time you walked for more than an hour?
2. If you had to move from Ontario, where would you go and what would you miss most about Ontario?
3. How did you celebrate last Halloween?
4. Do you read a newspaper often and which do you prefer? Why?
5. What is a good number of people to have in a student household and why?
6. What is the best restaurant you've been to in the last month that your partner hasn't been to? Tell your partner about it.
7. What gifts did you receive on your last birthday?

Set 2

1. Tell the ages of your family members, including grandparents, aunts and uncles, to the extent that you know this information.
2. One of you say a word, the next say a word that starts with the last letter of the word just said. Do this until you have said 50 words. Any words will do- you aren't making a sentence.
3. Do you like to get up early or stay up late?
4. What is your favorite class so far? Why?
5. What did you do this summer?
6. Who is your favorite actor of your own gender? Describe a favorite scene in which this person has acted.
7. What was your impression of Huron the first time you came here?

Set 3

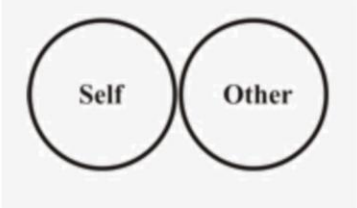
1. What is the best book you've read in the last three months that your partner hasn't read? Tell your partner about it.
2. Do you prefer digital watches and clocks, or the kind with hands? Why?
3. What are the advantages and disadvantages of artificial Christmas trees?
4. How often do you get your hair cut? Where do you go?
5. Do you think left-handed people are more creative than right-handed people?
6. What was the last concert you saw?

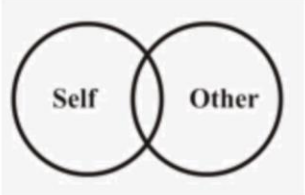
7. Do you subscribe to any magazines? Which ones? Have you subscribed to any magazines in the past?

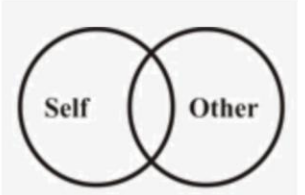
Appendix E

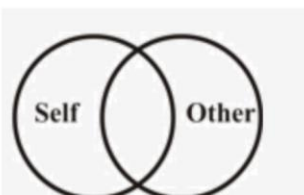
QUALTRICS POST-INTERACTION QUESTIONNAIRE: MANIPULATION CHECK*

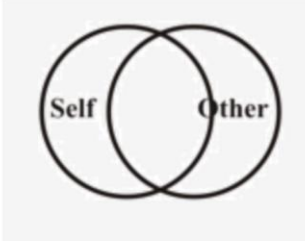
Please circle the picture that best describes your How you feel about your partner *right now*.


○ 


○ 

○ 

○ 

○ 

○ 

○ 

Relative to all your other relationships (both same and opposite sex) how would you characterize your relationship with your chatroom partner?

1. Not close at all 2. 3. 4. 5. 6. 7. Very close
- ○ ○ ○ ○ ○ ○

* The first item was the Inclusion of Self in Other (Aron et al., 1992) and the second was the self-referent relationship rating item of the Relationship Closeness Inventory (Berscheid et al., 1989). Because the two items correlated ($\alpha = .65$), The responses from the two questions were averaged to create a single measure of closeness for each participant.

Appendix F

CHATROOM 2: MODERATOR AND CONFEDERATE SCRIPT*After the manipulation check*

You were just chatting in the previous chatroom. It's now time for you to each share your thoughts on an idea proposed by the City of London. The London Transit Commission is considering a fee increase from \$262.92 to \$350.60 for the mandatory Student Bus Pass. The increase in student fees is compulsory and supports running more busses in high-demand times and routes. Your feedback will be shared in a document given to the City of London on student feedback for their proposal. As a reminder, you are not obligated to answer any questions if you do not want to.

We will start by having Sarah's thoughts on the issue.

Sarah: I think it's a good idea, LTC should increase fees. \$350 isn't that much for students to pay for a potentially big upside. Students need to get to campus one way or another. We already pay for bus passes so we might as well pay for a service that works. Students need to get to school to help them learn and not all students can afford to have a car and really rely on the bus systems. It's a good idea to have this support available for students and any disadvantaged student can succeed just like everyone else. Western doesn't have enough busses running now and I think it might be hurting current students. London is pretty far behind and it would help us be competitive as a school at Western.

Ok, Ben, what do you think?

Ben: LTC should increase the fees. It's good to help students get to campus and it will help attract future students. London needs to be thinking about how students impact its city and how it can best serve this large part of its population. This might also help students with disabilities get to school, or other students in the winter.

And [interaction confederate, Laura or Jack], what do you think?

[Interaction confederate, Laura or Jack]: \$350 is way way too much for students to pay and some students even have cars but have to pay anyway. The LTC should be able to figure it out without adding more money to their budgets. The cities will always need more in funding and it's just a money hole. If they are constrained to deliver a better product with fewer resources, they will find a way forward that doesn't mean increasing fees.

And [participant], what do you think?

The participant will then be given the time to respond.

Thank you all for your participation. The research assistant will now come and navigate you to the final questionnaire.

To what extent do you feel that tuition decisions at Huron impact you?

1. Not impacted at all 2. 3. 4. 5. 6. 7. Very impacted

To what extent did you change your attitude to match your one-on-one chat partner's?

1. Not changed at all 2. 3. 4. 5. 6. 7. Dramatically changed to match

I believe the proposed LTC fee increases are: *

	1. Not at all	2. Slightly	3. Somewhat	4. Moderately	5. Very	6. Mostly	7. Completely
Wise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Favorable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Beneficial	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unfair	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What is your sex?

Female

Male

Other

Prefer not to say

What is your age?

0 10 20 30 40 50 60 70 80 90 100

Age

What is your year of study?

First year

Second year

Third year

Fourth year +

*The Fee Increase Sentiment Scale was comprised of the five questions immediately following the asterisk. The scale was a combination of five sentiment scores, which asked the level that the participant felt the fee increase was wise, favorable, beneficial, bad, and unfair. The last two were reverse coded.

Appendix H

DEBRIEFING STATEMENT**Conformity, Persuasion and Attitude Certainty: The Moderating Role of Interpersonal Closeness****DEBRIEFING STATEMENT**

Principal investigator: Christianne Morrison

Contact information: cmorr25@uwo.ca

Thank you for your participation in this study.

The purpose of the study was to investigate the impact of interpersonal closeness on persuasion and conformity. First, you were given mixed information about a fake increase in fees that the London Transit Commission might undertake to create a state of ambivalence. You underwent either an interpersonal closeness or casual condition with “another participant”. This participant was actually a confederate, a person helping run the study. This was through an adapted version of an established questionnaire, “The Experimental Generation of Interpersonal Closeness”, by Aron et al. (1997) and Relationship Closeness Induction Task (Sedikides, 1999). You then were entered into a new chatroom where the moderator asked both you and your chatroom partner your feelings on the investment after undergoing either the close or casual condition. The chatroom was also made up of confederates. You then completed a post-interaction questionnaire that assessed your interaction with the confederate and then assess your levels of ambivalence.

The predictions of the findings of the study are that interpersonal closeness will cause individuals who are ambivalent toward a specific attitude object to then gravitate toward the answers of someone they feel close to (Moore, 1921). It was also predicted that this effect will be greater for women than men. This is suggested by persuasion and conformity literature which supports the notion that women are more persuadable and tend to conform to the attitudes of others more (Whittaker, 1965). A study by Ubando (2016) found that in relationships, women had higher scores on levels of supportiveness than their male counterparts in supportiveness within close personal relationships. It is suggested that supportiveness could lead to being more persuadable as females would want to demonstrate their supportiveness by agreeing with a male participant, thus being more persuadable. This is complimented by the finding that men tend to overestimate the extent to which they are warm and supportive in relationships, which suggests they may not get as objectively close to their partner as they think they are, and also would not feel the need to be as supportive. In contrast, women did not think as highly about their levels of intimacy, which may lead them to overcompensate and try even harder to achieve interpersonal closeness.

Here are some references if you want to learn more about this research:

Aaron, A. et al. (1997). The experimental generation of interpersonal closeness: A procedure and some preliminary findings. *Personality and Social Psychology Bulletin*, 23.

Asch, S. E. (1951). Effects of group pressure upon the modification and distortion of judgment. In H. Guetzkow (ed.) *Groups, leadership and men*. Pittsburgh, PA: Carnegie Press.

Brown, S. M. (1979) Male versus female leaders: A comparison of empirical studies *Sex Roles*, 5(5), pp 595–61.

Eagly, A. H., & Chivala, C. (1986). Sex differences in conformity: Status and gender role interpretations. *Psychology of Women Quarterly*, 10(3), 203-220.
<http://dx.doi.org/10.1111/j.1471-6402.1986.tb00747.x>

Hebl, M. R. (1995). Gender bias in leader selection. *Teaching of Psychology* Vol. 22, Iss. 3, 186-188. doi:10.1207/s15328023top2203_6

Important Information Related to Your Participation

There will be just one session for this experiment. The study will not take more than 40 minutes of your time. *Participation is voluntary* and you may refuse to participate, refuse to answer any questions or withdraw from the study at any time. A refusal to participate will have no adverse consequences on your school grades or status. If you complete a survey and then decide that you would like to withdraw from the study, your data is impossible to individually delete as it is not tied to you. Because of this, any complete data sets will be used in the analysis.

Confidentiality

All information and data provided by you will remain confidential. You will not be identified in any reports of this study. In addition, your responses will be anonymous. Your professors or classmates will not see your responses. Your responses will be identified with a number and will not be linked with your name in any way. The responses that you provide will only be used for research purposes. All data collected from the study will only be accessible by the authorized researchers and will be stored electronically in a secure location in the Psychology Department at Huron University College for a minimum of 5 years. Any data reported from this study (e.g., conference presentations or publications) will be reported in the aggregate.

Risks, Costs and Benefits to You

It is possible you might be uncomfortable or embarrassed about answering personal questions on the survey. Some questions asked are quite personal but not outside of what you may experience in your day to day life and ask that you open up in the chat room. Participation in the study is voluntary. You will not be required to answer any question that makes you uncomfortable. You may refuse to participate, refuse to answer any questions, or withdraw from the study at any time with no effect on your school involvement. You will also be given the contact information for the researchers in case you have any additional concerns and/or questions. Although not anticipated, you will also be provided with counselor contact information should any negative effects from this study persist.

We think that you will enjoy participating in the chatroom as it is an opportunity to explore your own thoughts and feelings. This research may provide significant social and scientific benefits through the knowledge that will be gained about how individuals change the way they make decisions after undergoing an interpersonal closeness manipulation.

If you have any questions or concerns, please contact Dr. Christine Tsang, Chair of the

Psychology Department: ctsang33@huron.uwo.ca.

Mental Health & Wellness Support at Huron and at Western

Students who are stressed, emotionally distressed or in mental health crisis please refer to: huronuc.ca/student-life-campus/student-services/health-wellness for a complete list of options about how to obtain help, or email Huronwellness@huron.uwo.ca to access your wellness staff directly.

Additional supports for Health and Wellness may be found and accessed at Western through: www.uwo.ca/uwo.com/mentalhealth/.

Huron is committed to providing a safe, welcoming campus for students, staff and faculty by providing confidential assistance to those who have personal safety concerns. Providing a safe and welcoming campus for students, staff and faculty is one of Huron's top priorities. The Student Emergency Response Team (SERT) provides medical response to 9-1-1 calls on Main, Brescia and Huron campuses which operates 24 hours a day, 7 days a week during the academic year. SERT is dispatched through the campus community Police Service (CCPS) to any medical emergency on campus at (519) 661-3300. For more information about SERT please visit: sert.uwo.ca/about-sert/about-sert/.

Curriculum Vitae

Name: Christianne Morrison

Place and Year of Birth: Calgary, Canada, 1997

Secondary School Diploma: Senior Matriculation, West Island College, Calgary,
Canada

Awards: Hellmuth Scholarship, Huron University College,
2015-2020
RBC Diversity Scholarship, Toronto, 2019
Ron and Nancy Clark HBA Entrepreneurship
Award, Richard Ivey Business School, 2020