Generational Differences in Situational Swearing by Canadian University Students, Faculty and Staff

by

Jo Minx

Submitted in partial fulfilment of the requirements for the degree of Bachelor of Arts with Honours in Sociology

at

Dalhousie University
Halifax, Nova Scotia
April 2017

© Copyright by Jo Minx, 2018
Acknowledgements
I would like to start with thanking Kenny Power, a student out of the Faculty of Computer Science who offered up his free time to help conceptualize, and assist in, data collection for an early rendition of this project.

I would also like to thank Dr. Howard Ramos for his continued and ongoing support throughout my undergraduate degree. His knowledge and guidance has been invaluable in helping me direct myself into pursuing doing research with this honours project, and motivating me to pursue a graduate degree.

Additionally, I would like to thank Dr. Yoko Yoshida for all the help and guidance she provided throughout this project. Dr. Yoshida was always willing and able to make time for me when I wanted to talk about any aspect of this project. Through her statistics classes, she helped develop a deep interest in wanting to learn more about how statistics can tell the story they tell. More importantly, Dr. Yoshida was always there to, metaphorically, kick me in the ass when I was not prepared for conversations I wanted to have with her regarding my project, which always helped me get back on track to where I should be.

Lastly, I would like to thank my supervisor for this project Dr. Laura Eramian. Her knowledge, enthusiasm and support over the latter half of my undergraduate degree has been a guiding force in developing my interest in academia and a love for the research process. Without her, this project would not have come to fruition.
# Table of Contents

ABSTRACT .......................................................................................................................... III

1. INTRODUCTION .............................................................................................................. 1

2. LITERATURE REVIEW & THEORETICAL FRAMEWORK ............................................. 2

   2.1 WHAT IS IT FOR?: THE TYPES OF CURSING ....................................................... 3
   2.2 THE MANNER OF CURSING: DIFFERENCES ACROSS AGE GROUPS ...................... 5
   2.3 IMPRESSION MANAGEMENT IN THE DRAMATURGICAL PERSPECTIVE .............. 7
   2.4 THE STUDY ............................................................................................................. 9
   2.5 HYPOTHESES .......................................................................................................... 10

3. METHODS .......................................................................................................................... 10

   3.1 THE SURVEY METHOD ......................................................................................... 10
   3.2 POPULATION SAMPLING AND RECRUITMENT ....................................................... 10
   3.3 CODING AND ANALYSIS ....................................................................................... 12
   3.4 LIMITATIONS & ETHICAL CONSIDERATIONS ....................................................... 14

4. ANALYSIS AND FINDINGS ............................................................................................... 14

   4.1 DAILY REPORTED CURSING FREQUENCY ............................................................ 15
   4.2 INFORMAL SITUATIONS ......................................................................................... 17
   4.3 INTERMEDIATE SITUATIONS ................................................................................. 19
   4.4 FORMAL SITUATIONS ........................................................................................... 21
   4.5 DISCUSSION ........................................................................................................... 23
   4.6 LIMITATIONS AND IMPLICATIONS ....................................................................... 26

5. CONCLUSION ..................................................................................................................... 27

REFERENCES ......................................................................................................................... 29

APPENDICES .......................................................................................................................... 31

APPENDIX A—MEANS IN CURSING FREQUENCY ............................................................ 31
APPENDIX B—T-TEST OF MEANS IN CURSING FREQUENCY ........................................ 31
APPENDIX C—CURSING FREQUENCY REGRESSION TABLE ............................................. 32
APPENDIX D—MEAN SCORES OF PEOPLE OF INFORMAL RELATIONS ......................... 33
APPENDIX E—T-TEST OF MEANS FOR PEOPLE OF INFORMAL RELATIONS ................... 33
APPENDIX F—MEAN SCORES OF INFORMAL LOCATIONS ............................................ 33
APPENDIX G—T-TEST OF MEANS FOR INFORMAL LOCATIONS .................................... 34
APPENDIX H—REGRESSION TABLE FOR VOI’S .............................................................. 34
APPENDIX I—MEAN SCORES FOR PEOPLE OF INTERMEDIATE RELATIONS .................. 35
APPENDIX J—T-TEST OF MEANS FOR PEOPLE OF INTERMEDIATE RELATIONS ............ 35
APPENDIX K—MEAN SCORES FOR INTERMEDIATE LOCATIONS ....................................... 35
APPENDIX L—T-TEST OF MEANS FOR INTERMEDIATE LOCATIONS ............................... 36
APPENDIX M—MEANS SCORES FOR PEOPLE OF FORMAL RELATIONS ......................... 36
APPENDIX N—T-TEST OF MEANS FOR PEOPLE OF FORMAL RELATIONS ................. 36
APPENDIX O—MEAN SCORES FOR FORMAL LOCATIONS .............................................. 37
APPENDIX P—T-TEST OF MEANS FOR FORMAL LOCATIONS ........................................... 37
Abstract
The use of swearing in everyday discourse is a grey area in whether it is appropriate, and to what extent it may be appropriate. Previous studies suggests that younger individuals swear more compared to older generations, indicating that younger individuals may not see swearing as ‘inappropriate language’ and will use it conversation more casually. To test whether younger individuals (those under 35-years old) swear more compared to older generations (35-years and up), a survey was disseminated over university-affiliated social media groups in order to gather data from students, faculty and staff from universities across Canada. Participants were asked how often they curse over the length of the day, and how likely they would curse in informal, formal or intermediate situations. Overall, the data suggested there was little difference between age groups and that both groups cursed just as much and within the same situations as one another. The data also found that there was little difference in cursing between men and women in practical situations, contrary to the literatures claim that swearing is generally a masculine activity. This suggests a shift in women in the university institution pushing the boundaries of traditional gender norms in the kind of language they use.
1. Introduction

The use of language in humans is undoubtedly the key defining feature that sets us apart from the rest of the species on earth and is at the root of every social and technological creation humans have done (Wilson, 2017). Language is a key component in defining culture, representing trends in values and practices within a group (Abd el-Jawad, 2010; Kramsch, 2000; Wilson, 2017). It is the primary form of communication that conveys wants, needs, actions and emotions, and can be used in a variety of forms such as verbal, written or gestured.

Pejorative use (cursing or swearing1) is a part of language that is generally deemed unacceptable in everyday discourse (Jay & Janschewitz, 2008; Pascoe, 2005). However, with the growth of multimedia and online (internet) communities, there has been a shift in pejorative use, as its use in online discourse can often allow and accept the use of this language in a manner that is otherwise unacceptable in day-to-day discourse (Vrooman, 2002). In looking at age differences, there appears to be little literature on swearing practices in younger generations, with much of the literature instead looking primarily at those over 35-years old (McEnery & Xiao, 2004). However, some previous studies suggest that younger generations are more casual and thus more frequent in the way they swear compared to older generations (Vrooman, 2002; Nagle, 2017).

To explore the swearing differences between younger generations compared to older generations, I will look at answering the following questions: What is the difference in cursing frequency between generational groups? How do these generational differences

1 Throughout this paper, ‘pejoratives,’ ‘swearing,’ ‘cursing,’ ‘critical language,’ and ‘vulgar language’ are used interchangeably.
affect how likely younger or older generations are to curse in various situations? Exploring
these questions may shed light on changing trends in the use of critical language, showing
whether younger generations hold the same—or different—values, beliefs and behaviours
as older generations do around swearing. Further, it aims to provide empirical evidence
in establishing the appropriates of the types of language we use in various situations and
to what extent it is appropriate or inappropriate to use critical language.

For the purposes of this thesis, I will begin by outlining the relevant literature and
theoretical framework used, exploring the kinds of swearing used, who primarily uses
vulgar language, including a brief discussion why they do. I will also include my
hypothesis to the expected relationship between the variables of interest. Then, I will
outline my methods for data collection and their limitations. Then I will present my
research subjects and variables, including a discussion on how data was coded and
analyzed, as well as a discussion regarding ethical concerns. Lastly, I will present what
the data says, looking at the differences in the generational age groups while controlling
for other demographic variables such as gender and institutional role within Canadian
universities, followed by a discussion about what the results represent.

2. Literature Review & Theoretical Framework
Exploring some of the relevant literature related to the topic of swearing, I will start by
exploring different types of cursing, touching on the kinds of context they can be used in.
Then, I will look at some previous studies on the topic that stem through both exploratory
and explanatory methods, followed by a presentation of the relevant theoretical literature
related to the topic. Lastly, I will present a brief outline of my study, followed by my
hypothesis, which outlines the relationship I expect to see between the variables of interest measured in my survey.

2.1 What is it for?: The Types of Cursing

Research on the kinds of swearing or cursing has outlined five types of swears: abusive, emphatic, dysphemistic, idiomatic and cathartic swearing (Pinker, 2008).

Abusive swearing is meant to be directly hurtful towards another individual, such as name calling or verbal abuse. This includes the secular use God and other religious swears. Due to the nature of abusive swearing, their use is generally considered to be unacceptable regardless of the situation it is used in (Pinker, 2008).

Emphatic swearing involves using the taboo-ness of swearing in stressing the importance of what is being said. This paradigm includes using swears that grammatically or etymologically do not make sense, such as “shut the fucking door” (Pinker & McEwan, 2007, p.97), where the use of the word ‘fucking’ does not grammatically make sense in the context of what is being said in “shut the...door” (Pinker & McEwan, 2007, p.97). The perceived taboo-ness of the word ‘fucking’ is meant to provide a shock factor in the context of the statement, stressing how important it is to “shut the...door” (Pinker & McEwan, 2007, p.97). The use of swearing in this context can be seen in military training, where yelling and swearing is used as a ‘stress factor’ for soldiers going through training (Hughes, 2006; Power, 2015). According to Pinker (2008), its use is generally unacceptable in formal situations but is acceptable in informal, which leads into the next kind of swearing: idiomatic. Idiomatic swearing is much like emphatic swearing where it is generally only acceptable in informal situations. However, its use is more broad than emphatic swearing, not relating only to its use as a shock factor. Rather, its acceptance of use varies less on the context and more on the situational factors at hand, such as the
environment, those in proximity to the speaker, and the kind of social bonds with the speaker (Nicolau & Sukamto, 2014). By this, friends or close family members may use this language around one another if it is the established verbal dynamic of the relationship; it is generally known and accepted by the speaker-listener that there will be swearing around one another and it is not to be looked at as taboo speech.

Dysphemisms are a kind of swearing where ‘unpleasant’ terms are used in place of ‘pleasant’ ones, and is generally considered always unacceptable (Pinker, 2008). While the use of dysphemisms spans across all aspects of language and is not directly related to cursing or swearing in itself, its use in swearing allowed the replacement of socially unacceptable words with socially acceptable ones (Jay & Janschewitz, 2008; Mercury, 1995). This can often be seen in how we teach critical language to children by using ‘soft’ words, such as ‘crap’ to replace words like ‘shit’ (Jay & Janschewitz, 2008; Mercury, 1995; Dewaele, 2010). This can be considered acceptable as it attempts to shift use away from the unacceptable.

Lastly, cathartic swearing is a kind of swearing done as an involuntary response or stress relief, expressing pain or fear. Its use can be either acceptable or unacceptable, depending on the context (Pinker, 2008). For example, stubbing your toes may cause you to react by yelping or muttering a pejorative.

The use of idiomatic and cathartic swearing might explain why accidental swearing on public television is considered humorous and thus, acceptable. However, all fail to explain the phenomena of cursing in online message boards where formal and informal roles appear irrelevant online compared to regular society. Use of swearing in televised and online media will be discussed further in the next section.
2.2 The Manner of Cursing: Differences Across Age Groups

Existing literature on pejorative use displays a prevalence in its use predominantly in middle-aged white men (Christie, 2013; Dewaele, 2010; Jay & Janschewitz, 2008; McEnery & Xiao, 2004; Pascoe, 2005; Kramsch, 2000). There appears to be little literature on the topic looking at a younger demographic. In one study, Vrooman (2002) looks at situations in which cursing is used in online message boards, where the purpose of the board is to insult and berate one another. Due to the nature of online content analysis, messages cannot be concretely attributed to a particular demographic. The author presumes the demographic here are primarily men in their late teens, as this demographic group are known to frequent these kinds of websites, but due to the nature of the study this is not properly established (Vrooman, 2002). It makes an interesting case, as it displays behaviour in an environment in which cursing is acceptable in all situations with members of the same cohort. The expected/accepted thing to do is to curse and insult someone, and it is unusual to not curse and insult—contrary to the standard norm in society. This implies that younger individuals are more casual and more frequent in the manner in which they curse. That said, this may also be explained through the anonymity of the internet, where individuals may feel more comfortable breaking accepted norms as doing so lacks sanctions that may otherwise come with similar behaviour in day-to-day life.

One study by Butler and Fitzgerald (2011) on accidental swearing on public television leaves to question how some situations should be treated. The authors explained that the role of a reporter or news anchor may be a formal presentation, but that many accidental swears were not ‘bleeped’ out (that is, covered with a 1 kilohertz pitched sound to make the word indistinguishable) as the irony in which they were used
made the curse acceptable as a form of humour (Butler & Fitzgerald, 2011). This presents an interesting case in how some individuals associated formality may not play as significant a role compared to the context of speech in guiding the extent to which swearing is appropriate or inappropriate.

While my study does not aim to look at speech in multimedia or online communities, these frameworks are used to establish situations and scenarios where the use of this language differs from the norm, in understanding how younger individuals may practice swearing.

In looking at social situations, Jay and Janschewitz (2008) established levels of formalities between people and places in looking at the rated offensiveness/taboo-ness of certain curse words, and how the rating varies on who is being conversed with and where. While much of the literature that looks at pejorative usage as common-place revolves around multimedia or internet culture, it shows how the use of pejoratives in everyday discourse is acceptable in some situations. This leaves to question to what extent it is appropriate to curse in everyday discourse—while the generally preconceived notion is that it is unacceptable (Jay & Janschewitz, 2008), there is evidence that shows the contrary. Jay and Janschewitz’s (2008) study on undergraduates’ perspectives on swearing in various situations within the university found that speaker-listener relationship played a key role in the offensiveness and taboo rating. Likewise, it found that an individual’s level of authority guided how appropriate it was for them to curse (Jay & Janschewitz, 2008). In particular, the more authority one had, the more inappropriate it was for them to curse, however this only extended outside of the location in which the individual was associated with (Jay & Janschewitz, 2008). For example, it was
inappropriate for a dean to curse anywhere on campus unless they were in their office, at which point it became acceptable (Jay & Janschewitz 2008).

By using ‘situations’ based on Jay and Janschewitz’s (2008) variation between people and places, I aim to look at how the use of swearing differs between younger and older generations. As there is little literature on younger demographics, but it is assumed younger people are more casual in how they use this language compared to members of older generations (Vrooman, 2002).

2.3 Impression Management in the Dramaturgical Perspective

The concept of situated identity and the study of human interaction by Erving Goffman borrows from the idea of dramaturgy, which presents life as a performance—or series of performances—where the individual seeks to portray a particular image of the self for others within a particular context (Bullingham & Vasconcelos, 2013; Goffman, 1973). It looks at how we present ourselves to others and is based on our socialization, by allowing us to take what we know about the world and input this into the role—the situated identity—we are presenting (Goffman, 1973). In this, the way in which we present ourselves is based on various factors such as the social setting, our values, beliefs, habits and the manner of our interactions, (Adler, Adler & Fontana, 1987; Goffman, 1973).

From the dramaturgical perspective, impression management is a tool used by individuals to guide the kind of impression one makes on others, based on the expression they give—the things that are communicated and the impressions one aims to make on others—and the kinds of expressions they give off—impressions that were not intended to be given to the audience or the individual(s) one interacts with (Bullingham & Vasconcelos, 2013; Goffman, 1973). Situated identity talks about one’s understanding of the expectations of their role, which guides their actions in the kinds of expressions they
give, and the impressions they make on others. This is fulfilled in two ways: how one presents themselves on the front stage and their back stage (Goffman, 1973; Pearce & Moscardo, 1986). Front stage represents the behaviour or actions one is acting out or fulfilling the role they are expected to be in, while back stage is the behaviour one does when away from the audience, or those they are attempting to make an impression on. These can be expressed by way of the kinds of people or the location one is acting in. For example, a teacher is expected to act in a particular manner when in a classroom teaching in front of their students as an expression of their front stage behaviour. Once the students leave, the teacher may act differently as an expression of their back stage behaviour, as they are away from their students—the audience—and are no longer attempting to make an impression on this group or have to continue performing their role. However, back stage behaviour is not solely conducted away from individuals (Mangold & Babakus, 1991; Goffman, 1973). Backstage behaviour can be performed around other individuals one is not trying to make an impression on, such as friends or family—individuals one is comfortable and have an established relationship with.

Active use of front stage/back stage behaviour in day-to-day life can be related to Jay and Janschewitz’s (2008) recognition of the speaker-listener relationship which guides how acceptable it is to swear. Those of authority attempt to personify their authoritative role by acting in a respectable manner through front stage behaviour by not swearing around their employees or students. Likewise, students would generally not swear around the dean as the dean represents an individual of authority over students. Students may attempt to present a wall-mannered, hard-working self, representing the front stage behaviour of the students.
2.4 The Study

I want to explore how this use of language differs between generational groups from participants within the university institution, by looking at the difference between the younger generation (those whose ages are below 35-years old) and the older generation (those who are 35-years old and above) based on McEnery and Xiao’s (2004) finding that there appeared to little data on those below 35-years old compared to those 35-years and older. In applying the dramaturgical analysis to this study, its analysis might better apply to looking at the roles of participants within the university institution to see how more or less likely students, faculty and staff are to curse in the various situations over one another. However, I believe that age and role within the university will be related in that older generations will generally be faculty/staff, while younger students will generally be students, thus allowing the dramaturgical analysis to still apply appropriately while filling the knowledge gap of swearing practices of younger individuals.

While participants in the study by Jay and Janschewitz (2008) indicated it was only appropriate for individuals to curse in the location they were associated with—the dean in his office, the students in their dorm—they did not look at how this changed based on the interaction of the types of people within these locations. As interaction between individuals and the physical location itself is key to defining a situation, I am aiming to look at the differences in how age groups report cursing in various situations, with situations composed by a combination of person/location interaction. From there, I aim to see what the correlation is between these groups within these situations.

To understand how the use of our language interacts in certain situations in contemporary Canadian society, I aimed to look at the situational use of critical language from the perspective of students, faculty and staff in Canadian universities. These
individuals were chosen as individuals within the university institution are generally associated with—or are at the very center of—contemporary debates regarding free speech and censorship. While my study does not look at the topic of free speech or censorship in itself, looking at this population allowed me to narrow my research population to a group who are likely more aware about the topic, or think more critically on the kind of language they use in their day-to-day discourse.

2.5 Hypotheses

Following my research question posed earlier, expect to see the following four relationships between my variables:

1. The younger generation will report a higher cursing frequency over the older generation,

2.1. The older generation will have a higher reported likeliness to curse than the younger generation in formal situations,

2.2. Both generational groups will be equally likely to curse in intermediate situations, and

2.3. The younger generation will have a higher reported likeliness to curse in informal situations when compared to the older generation.

3. Methods

3.1 The Survey Method

Data was gathered using survey methods provided by Dalhousie Universities Opinio survey services. They survey included 48-questions, broken into three broad categories: situations, perceptions and demographics. The situations section included 31, Likert-scaled questions broken into three sub-categories of ‘people,’ ‘places’ and ‘situations,’
where: ‘people’ looked at the types of people a respondent may run into in their day-to-day life; ‘places’ looked at the types of locations or environments a respondent may be situated in throughout their day-to-day life, and; ‘situations’ looked at the interaction of a selection of previous people/places from various levels of formalities. Each person/place had an associated level of formality of either ‘informal,’ ‘formal,’ or ‘intermediate.’ ‘Intermediate’ represents a bridge between formalities as an individual/location which is neither formal (or holds a particular amount of authority, in the case of the individual) nor informal, but does require some presentation of a professional demeanor.

As I aimed to look at how participants may react towards people/places in their day-to-day life persons and locations from Jay and Janschewitz (2008) study were expanded on. These primarily looking at those one might interact with in the home, in the school/workplace, and the miscellaneous ‘other’ (that is, a person/location one would likely interact with in their day to day life but is not within the home or a person/location of obligations, such as the school/workplace). By this, people of informal relations included siblings, coworkers/fellow students and friends; informal locations included personal residence, school/workplace and, a friends residence; people of intermediate relations included baristas, school/workplace cleaning staff and strangers; intermediate locations included coffee shops, parking garage and public parks; people of formal relations included a professor/boss figure, grandparents and, neighbours; formal locations included professors/bosses office, grandparents’ house and, a public library.

The perceptions section included 11 open-ended questions looking at participants’ perceptions on the purpose of swearing and understanding the kinds of words they use. This qualitative data was used to provide context, but for the purposes of this project was not systematically analyzed.
3.2 Population Sampling and Recruitment

Recruitment was done via social media using Facebook and Twitter, targeting university-affiliated social media groups/profiles from universities across Canada. Facebook groups included student unions, student societies, faculty groups, book exchanges, off-campus housing coordinators, general social groups and graduating classes of ‘X’ year. On Twitter, the post was ‘tweeted’ to university groups, individual students and researchers, some of whom shared the post to their own personal followers.

University-affiliated social media groups were chosen as the primary recruitment tool due to the ease of disseminating a survey link via text to a large body of individuals in a short period of time. Due to the manner in which information is disseminated via these two social networks, Facebook proved to be more fruitful at recruitment as ‘groups’ on its platform can often have thousands of individuals interacting with it at any given time. Additionally, depending on individually personalized notification preferences on the platform, many individuals received a notification to their profile from posts on these groups, improving hit rate in gaining participants.

3.3 Coding and Analysis

Data was coded and analyzed in the statistical software Stata, with tabular data exported into Excel to consolidate tables and create an easy-to-read format for data outputs. Generational groups of participants were split into two categories: the ‘younger generation’ and the ‘older generation,’ where the younger generation includes all participants under 35-years old and the older generation included all participants 35-years old and above. Reported gender was taken into account but only male/women gender roles were analyzed. Due to low response rate of non-binary gender roles that would have otherwise skewed data, these responses were dropped. Likewise, participant’s
reported institutional role within the university was taken into account by looking at whether they were students, a faculty member or general staff. As individuals employed by the university are likely older comparatively to students, faculty and staff were grouped into one category to be analyzed in comparison to students.

Likert-scaled questions asked respondents to rate how likely they were to curse around certain people or within certain locations, with scores ranging from 0 (not at all) to 4 (all the time). People/places of corresponding formalities were aggregated, creating a numerical 0 to 12-point scale, allowing for a regression analysis to test the relationship between variables independent of one another. Much of the literature looks at swearing practices in older generations; as my project looks to fill the gap by focusing on younger generations’ swearing, the older generation was used as a baseline in the regression analysis to look at how much more or less younger generations are to curse in specific situations. In the control variables of institutional role, faculty/staff were used as a baseline for institutional role due to their age being higher than that of students; when controlling for gender, men were used as the baseline to understand how much more or less women curse in comparison.

Independent variables included the aforementioned demographics: generational groups, controlling for gender and participants’ institutional role. Likewise, in order to see the interaction of participants’ likeliness to curse in certain ‘situations’—around certain individuals in certain locations—aggregate variables of informal, intermediate and formal locations were used as independent variables. Dependent variables include participants’ reported daily cursing frequency, and aggregate variables from the total scores of informal, intermediate and informal people into ‘people of informal relations,’ ‘people of intermediate relations’ and ‘people of formal relations.’
As much of the demographic data was important in understanding who acts in what situation, those who did not complete the demographic section in its entirety were excluded from the final analysis. As mentioned earlier, non-binary gender roles were excluded due to low response rate. Excessive outliers and individuals who intentionally provided false responses (such as references to pirates or to the cartoon television show Spongebob Square Pants) were excluded from the final analysis. After this extensive data cleaning, the sample size was reduced from 1809 to 960.

3.4 Limitations & Ethical Considerations
The data presented is not statistically representative of all Canadian university students, faculty and staff, however aims to provide an idea of how swearing practices may be different between generational groups. The sample size was primarily younger generation/students, making an accurate comparison between groups less accurate than it may have been if there was an equal difference between the younger/older generation and students/non-students.

There were no significant ethical concerns regarding the project. Data collection was conducted in a manner that allowed participants to choose a time and location of their own convenience to participate. Participants could choose not to answer any questions they did not want to or did not feel comfortable with, and data was collected completely anonymously. Risks associated with participating were no greater than what participants may encounter in their everyday life.

4. Analysis and Findings
Respondent’s ages ranged from 16 to 69-years old, mean=21.91 and SD=5.9. After categorizing generational groups, my sample became 95% younger generations—with
ages ranging from 16 to 34-years old, mean 20.79 and SD=2.88—and 5% older generations—ranging from 35 to 69-years old with a mean=43.25 and SD=7.81. Of them, 24.17% were men and 75.83% were women. In terms of participants’ institutional role within the universities, 96.87% were students and 3.13% were faculty/staff.

Daily reported cursing frequency between all respondents ranged from 0 (does not curse at all) to 1500 occurrences per day, with the mean=31.77 and SD=91.25. Looking at scores from all respondents: informal locations scores ranged 0 to 12 and had a mean=7.71 and a SD=2.81; intermediate locations scores ranged 0 to 12 and had a mean=5.07 and SD=2.99, and; formal locations scores ranged 0 to 12 and mean=2.02 and SD=1.96. People of informal relations scores ranged 0 to 12, had a mean=8.12 with a SD=2.93; people of intermediate relations scores ranged 0 to 12 and had mean=2.85 with a SD=2.41, and; people of formal relations scores ranged 0 to 12 and had a mean=1.73 with SD=1.98.

Starting this study, I believed that participants within the older generation group would generally be faculty/staff within the universities. However, a bi-variate analysis of participants’ age group and institutional roles shows that my assumption was not correct. While 98.79% of younger generations generally were students, only 39.58% of older generations filled the role of faculty/staff. This may be due to the sampling methods chosen, as primary recruitment was conducted on student-based social media groups as I got little response from administrators on teacher/professor-based social media groups, and thus had little recruitment from these individuals.

4.1 Daily Reported Cursing Frequency
Looking at the differences in reported daily cursing frequency between generational groups (Appendix A), the younger generation had a mean=32.07 and a SD=92.12
compared to the older generation who had a mean=25.93, SD=73.13 occurrences per day, indicating that the younger generation reported cursing slightly more per day over the older generation. A T-test of means (Appendix B) indicated a difference in mean scores=6.14 and a p-value=0.3249, failing to reject the null hypothesis at alpha=0.05, indicating the data was not statistically significant and there was no significant difference between the younger and older generation.

In a regression analysis, controlling for gender and institutional role (Appendix C), the younger generation had a coefficient= -4.9, indicating they cursed less than the older generation. However, the p-value=0.747, failing to reject the null hypothesis at alpha=0.05, indicating the data was not statistically significant and there was no significant difference between the two generational groups. Looking at institutional role, students had a coefficient=29.62, indicating they reported cursing almost 30 occurrences more a day than faculty and staff. However, the p-value=0.120, failing to reject the null hypothesis at alpha=0.05, indicating the data was not statistically significant and there was no significant difference between institutional roles. Women, had a coefficient= -36.37, indicating that they reported cursing 36 occurrences a day less than men. The p-value=<0.000, indicating the data was statistically significant at alpha=0.05. In this model, the F-value=<0.000 and R2=0.0311, indicating the model is a good fit but explains only a small percentage of the outcome variable.

The regression model suggests that gender plays a more significant role on their daily cursing frequency over their age group or institutional role. It should be considered, however, that despite the fact that the younger generation includes all ages under 35-years old, the mean age=20.79. In the case of institutional role, the non-student group included both faculty and general staff throughout the university institution. This is important to
note as while faculty members generally identify as being middle class, ‘staff’ includes a more diverse array of individuals from various socioeconomic status groups where those of lower status such as cleaners may report cursing more frequent over others of higher status within this group such as university administrators or deans (Haney, 2015; McEnery & Xiao, 2004). In the case of gender roles, the data supports the literatures claim that women generally curse less than men, as the use of critical language is generally seen as a masculine activity (Christie, 2013; Hughes, 2006; Jay & Janschewitz, 2008; McEnery & Xiao, 2004; Pascoe, 2005).

4.2 Informal Situations

Looking at the difference between the younger and older generation’s scores around people of informal relations (Appendix D), the younger generation reported being more likely to curse around these individuals with a mean=8.1, SD=2.9 compared to the older generation who had a mean=7.8 and SD=2.9. However, a T-test of means (Appendix E) indicated a difference=0.2755 and p-value=0.2744, indicating the data was not statistically significant and there was no significant difference between generational groups likeliness to curse around people of informal relations.

When looking at the interaction of age in informal locations (Appendix F), the younger generation was still slightly more likely to curse in these locations, with a mean=7.7 and SD=2.8 over the older generation who had a mean score of 7.4 and SD=2.5. A T-test of means (Appendix G) for informal locations indicated a difference=0.2871 and a p-value=0.2479, indicating the data was not statistically significant and there was no significant difference between generational groups likeliness to curse in informal locations.
In a regression analysis of informal situations (Appendix H), the effect of informal locations and people of informal relations scored a coefficient=1.0064, indicating that for every point increase in scores for informal locations, scores raised just over one point for people of informal locations. The p-value=<0.000, indicating the data was statistically significant at alpha=0.05 and that there was in fact a correlation between the two variables. The younger generation around people of informal relations scored a coefficient= -0.0003, indicating they were less likely to curse around these individuals over the older generation by a very small amount. However, the p-value=1.000 failed to reject the null hypothesis at alpha=0.05, indicating that the data was not statistically significant and there was no relationship between variables. Scores for women increased slightly compared to men with a coefficient=0.3429, indicating they reported being slightly more likely to curse around people of informal relations. However, the p-value=0.356, failing to reject the null hypothesis at alpha=0.05, indicating the data was not statistically significant and there was no significant difference between genders. Students reported being significantly more likely to curse around people of informal relations compared to the difference in generational groups and genders, with students’ coefficients=1.8211. However, this was not significant with the p-value=0.162, failing to reject the null hypothesis at alpha=0.05, indicating the data was not statistically significant and there was no significant difference between institutional roles.

Looking at the interaction of the situation by generation group, the younger generation was less likely to curse in informal situations with a coefficient= -0.0573 than the older generation. Accounting for institutional role, students scored a coefficient= -0.0807 and for women, coefficient= -0.0185 indicating that, when independent from one another, students were less likely to curse in informal situations than faculty/staff and
women were less likely to curse than men. However, p-values=0.659, 0.641, and 0.670 respectively, indicating that none of the variables were statistically significant, and there was no significant difference between generational groups, institutional role and gender. In this model, the F-value=<0.000 and R2=0.6997, indicating the model is a good fit and explains a large percentage of the outcome variable.

4.3 Intermediate Situations

The difference between generational groups in intermediate situations was minimal. When looking at the difference between generational groups around people of intermediate relations (Appendix I), both generational groups scored the same mean=2.8, with the younger generation having a SD=2.4 over the older generations whose SD=2.5, indicating that both generational groups were just as likely as one another to curse around people of intermediate relations. A T-test of means (Appendix J) revealed a difference= -0.04 and a p-value=0.4494, indicating the data was not statistically significant and there was no significant difference between generational groups. Overall, this indicated that the younger generation were just as likely as the older generation to curse around people of intermediate relations.

When looking at generational difference in intermediate locations (Appendix K), the older generation were slightly more likely to curse in these locations with a mean=5.1 and SD=2.7 over the younger generation whose mean=5.0 and SD=3.0. A T-test of means (Appendix L) revealed a difference= -0.04 and a p-value=4599, indicating the data was not statistically significant and there was no significant difference between generational groups in intermediate locations.

The regression table (Appendix H) shows that in intermediate situations, intermediate locations had a coefficient=0.5514, indicating that for every point increase
of intermediate locations, scores increased by just over half a point around people of intermediate relations. The p-value=<0.000, indicating the data was statistically significant at alpha=0.05 and that responses in intermediate locations was correlated with responses for people of intermediate relations. The younger generation around people of intermediate relations scored a coefficient=0.6570, indicating they were slightly more likely to curse around these individuals over the older generation, however the p-value=0.300 failed to reject the null hypothesis at alpha=0.05, indicating that the data was not statistically significant and there was no relationship between variables. Scores for women decreased slightly compared to men with a coefficient= -0.0787, indicating they reported being slightly less likely to report curse around people of intermediate relations. However, the p-value=0.762, failing to reject the null hypothesis at alpha=0.05, indicating the data was not statistically significant and there was no significant difference between genders. Students reported being significantly less likely to curse around people of intermediate relations compared to the difference in generational groups and genders, with students’ coefficients= -1.1621. However, this was not significant with the p-value=0.189, failing to reject the null hypothesis at alpha=0.05, indicating the data was not statistically significant and there was no significant difference between institutional roles.

The younger generation were less likely to curse in these situations than the older generation with a coefficient= -0.1802, as were women compared to men, who scored a coefficient= -0.0527. Students reported being slightly more likely compared to faculty/staff, with a coefficient=0.2430. P-values= 0.092, 0.202 and, 0.185 respectively, indicating the data was not statistically significant and that there was no significant difference between generational groups, gender and institutional role. In this model, the
F-value=<0.000 and $R^2=0.5413$, indicating the model is a good fit and explains a large percentage of the outcome variable.

### 4.4 Formal Situations

The older generation reported being more likely to curse in formal situations. When looking at people of formal relations (Appendix M), the older generation had a mean=2.6 with SD=2.6 compared to the younger generation whose mean=1.6 and SD=1.9, indicating that the older generation were more likely to report cursing around people of formal relations. A T-test of means (Appendix N) revealed a difference= -0.9286 and p-value=0.0026, rejecting the null hypothesis, indicating the data was statistically significant at alpha=0.05, and that the older generation were in fact more likely to report cursing around people of formal relations.

When looking at this interaction in formal locations (Appendix O), the older generation were still slightly more likely to report cursing in these locations with a mean=2.4 and SD=2.7 compared to the younger generation whose mean=2.0 and SD=1.9. A T-test of means (Appendix P) revealed a difference= -0.4535 and a p-value=0.0905, failing to reject the null hypothesis at alpha=0.05, indicating the data was not statistically significant and there was no significant difference between generation groups reported likeliness to curse in formal locations.

The regression model (Appendix H) indicated that in formal situations, there was a correlation between participants’ likeliness to curse in formal locations and around people of formal relations with a coefficient=0.8299. Its p-value=<0.000, rejecting the null hypothesis and indicating the data was statistically significant at alpha=0.05. The younger generation around people of formal relations scored a coefficient= -0.3565, indicating they were less likely to curse around these individuals over the older
generation, however the p-value=0.266 failed to reject the null hypothesis at alpha=0.05, indicating that the data was not statistically significant and there was no relationship between generational groups. Scores for women increased with a coefficient=0.0553, indicating they reported being slightly more likely to curse around people of formal relations. However, the p-value=0.705 failed to reject the null hypothesis at alpha=0.05, indicating the data was not statistically significant and there was no significant difference between genders. Students reported being slightly less likely to curse around people of formal relations compared to the difference in generational groups and genders, with students’ coefficients= -0.5919. However, this was not significant with the p-value=0.162, failing to reject the null hypothesis at alpha=0.05, indicating the data was not statistically significant and there was no significant difference between institutional roles.

When looking at the younger generation in formal situations, scores decreased with a coefficient= -0.0625, indicating that the younger generation were slightly less likely report cursing in formal situations than the older generation. When looking at women in formal situations, scores also decreased with a coefficient= -0.1222, indicating that they reported cursing less than men in formal situations. In the case of students, scores increased slightly with a coefficient=0.0892. P-values=0.509, 0.008 and, 0.536 respectively, indicating that the coefficients for generational groups and institutional roles failed to reject the null hypotheses and were not statistically significant at alpha=0.05, indicating there was no significant difference between age of participants or their institutional role. However, the p-value for women (=0.008) did reject the null hypothesis at alpha=0.05, indicating the data was statistically significant and that women were slightly less likely to report cursing in formal situations compared to the baseline. In
this model, the F-value= <0.000 and R²=0.6176, indicating the model is a good fit and explains a large percentage of the outcome variable.

4.5 Discussion

Bringing my findings back to my research question and hypotheses, much of the data did not support my assumptions. In the case of the difference in daily cursing frequency between generational groups, while the younger generation had a mean slightly higher than the older generation, the data indicating any difference was not statistically significant and that overall, there was no significant difference in daily cursing frequency between the younger and older generation groups. Controlling for gender and institutional role revealed an interesting change in the results, as it suggested that younger generations actually reported cursing less than older generations in the run of a day, and that institutional role made a more of a difference as students reported cursing more than faculty/staff. However, this data was not as significant in comparison to participants’ gender, as women reported cursing roughly 36 occurrences a day less than men, supporting the literatures claim that women swear less than men (Christie, 2013; Jay & Janschewitz, 2008; McEnery & Xiao, 2004; Pascoe, 2005). It should be noted that context of conversation does also guides how much one gender may curse over another. For example, in conversation about sex, women swear more than men, particularly using the word fuck and its derivatives (McEnery & Xiao, 2004). That said, context of conversation was not accounted for in my research.

In participants’ reported likeliness to curse in the established situations, there was no significant difference between generational groups between informal, intermediate and formal situations. When controlling for participants’ gender and institutional role, this also played a small role as there were no significant differences between students and
faculty/staff and men versus women’s likeliness to curse, except for women in formal situations where scores decreased 0.1222 points around people of formal relations for every one-point increase for women in formal locations. The results for respondents who identified as women makes an interesting case. While women reported to curse fewer occurrences a day compared to men, when it came to their likeliness to curse in practice, they reported being just as likely to curse as men except for formal situations where scores decreased, albeit a minimum amount. This suggests a disconnection between what women believe are their cursing patterns versus what they report doing in reality. Likewise, this also suggests that previous conceptions that women cursed less than men may not be true—at least for women within the Canadian university institution—suggesting a change in how women use critical language, pushing the boundaries and behaviours of traditional gender roles.

In terms of what the data meant from the dramaturgical point of view, participants were most likely to curse in informal situations than formal situations. This aligns with Goffman’s (1973) idea where our participants would display front stage behaviour within formal situations, presenting themselves in a polite and favourable manner—refraining from using vulgar language—within these situations in order to create or maintain a good impression. In informal situations, participants were most likely to curse here as these were generally done around those one would feel most comfortable around, performing back stage behaviour around those one does not aim to make an impression on. When considering intermediate situations, participants were more likely to curse here than in formal situations, but less likely than in informal situations. This could be explained through the context of the kind of interaction that is held in these situations. For example, comparing a barista while in a coffee shop compared to a stranger you pass by in the park
(both used as examples of intermediate situations), there are distinct differences in these kinds of interactions. While both of the individuals were used as people of intermediate relations due to falling between the familiar (informal) and those one aims to make an impression on (formal), the interactions are distinct in that one may have more of an interaction with a barista by manner of ordering product at the coffee shop over a stranger in a park whom one is less likely to even speak to. Understanding the context of this kind of interaction may be important to note but is outside the realm of a quantitative analysis and would require richer, qualitative data.

The lack of difference in scores between generational groups or institutional roles could be explained by how language is accepted by those in the university. Universities are generally seen as institutions that promote free speech and freedom of expression, where the use and expression of a wide range of ideas and language are considered to be safe (Jay & Janschewitz, 2008). This may even extend to the use of critical language (Jay & Janschewitz, 2008). While those within the university may still be less likely to curse in formal situations than in informal situations, there is still the question of the context of the speaker-listener relationship in understanding to what extent this may be the case. For example, while a professor may be less likely to curse around their boss than around their siblings, they may still be more likely to curse around their boss compared to a government office worker cursing around their boss due to how speech is viewed in the university compared to those not in the university. This same dynamic may explain the lack of difference in cursing practices between gender groups. Women may still see cursing as a masculine activity, contributing why they report a fewer number of occurrences a day when compared to men, reporting the behaviour they believe is the appropriate front for their role as a woman. But when looking at their use in practice, they
reported doing it just as much as men, suggesting that their own views are contrary to what they report is their practice. Again, to what extent this is the case is unknown and is outside the realm of a quantitative approach.

4.6 Limitations and Implications

While the data looks at swearing between age groups within the Canadian university institution, the data is not representative of the population it aims to study. In particular, the sample of those from the older generation is quite small (5%) compared to the overall sample size, making it harder to get an appropriate understanding of the differences between generational groups. When accounting for institutional role, groups were clumped into two categories: students and non-student (that is, faculty/staff). While the data showed some interesting results between the two groups of institutional roles—in particular, that there was no difference and students were just as likely as faculty/staff to curse in all situations—comparisons should be taken with some skepticism. Due to the difference in sample size between the two groups (96.87% versus 3.13%, respectively), comparisons may not as accurately reflect the population compared to a sample that had a more equal distribution. As stated earlier, the faculty/staff group includes a wide variety of occupations within the university institution which may include people of very different socioeconomic status which could affect their likeliness to curse; in particular, staff of lower socioeconomic status may report higher daily cursing frequency or be more likely to curse in various situations over middle-class faculty members (Haney, 2015; McEnery & Xiao, 2004).

Being a student, faculty member or staff are not mutually exclusive. Many universities offer jobs to students within the institution, making a selection of individuals both students and staff. This was not accounted for.
Additionally, ethnic-cultural and language background were not taken into consideration and may have played an important demographic role in responses (Abd el-Jawad, 2010; Dewaele, 2010; Smith, 1998). The literature states that those from Asian or Arabic cultural backgrounds generally curse less as use of critical language is frowned upon and may even be sanctioned in these cultures (Abd el-Jawad, 2010; Dewaele, 2010). Conversely, those whose cultural background or first language have eastern-European roots may curse more due to their cultural roots and linguistic origin, as many eastern-European languages are crude in their mannerisms and are considered rude comparatively to western English due to their use of critical language (Smith, 1998).

Lastly, the context of speech may play a role in how likely one is to swear in certain situations (Butler & Fitzgerald, 2011). Understanding a subject’s conception of context of the interaction may be important to account for when understanding how likely they are to curse, particularly in intermediate and formal situations where appropriateness is less understood in these areas.

5. Conclusion

Cursing in everyday discourse draws a gray line as to what extent it is or is not acceptable or appropriate to do. Literature on swearing shows a bigger focus on middle aged white men with little focus on younger generations. However, previous research suggests that younger generations are generally more casual on how they swear in day-to-day discourse (Vrooman, 2002; Nagle, 2017).

In this paper, I aimed to look at the difference in reported cursing frequency between generational groups, as well as how likely younger generations will report cursing in various situations compared to older generations. I believed: that the younger
generation would report cursing more frequently than the older generation by indicating a greater number of occurrences per day; that the younger generation would indicate being more likely to curse in informal situations compared to the older generation; the older generation would be more likely to curse in formal situations compared to the younger generation, and; that there would be little difference between generation groups in intermediate situations. Instead, the data showed there was little interaction between reported daily cursing frequency and generational groups. Both groups were just as likely as one another regardless of the formalities of the situation, indicating that the younger generation are comparatively just as likely to curse the same amount per day, and in the same situations as older generation counterparts.

While this research touches on a topic that may seem to be everyday knowledge, it provides empirical evidence in establishing the appropriateness of the types of language we use in various situations, particularly for those within the university institution. Overall, while the data did not support my hypotheses, further analysis showed a disconnection in how women swear. While they reported cursing fewer occurrences than men, they reported cursing just as much in practice. This suggests that previous conceptions that women swear less than men are likely not true. Whether this is a difference in women within the university institution compared to outside the institution, or a changing trend in how women swear in general is something that requires further research.
References


Nicolau, M. S. & Sukamto, K. E. (2014). Male and female attitudes towards swear words: A case study at binus international school. *K@ta*. 16(2). p. 71-76.


Appendices

**Appendix A—Means in Cursing Frequency**

```
. ttest numcurse, by(agebin)
Two-sample t test with equal variances

<table>
<thead>
<tr>
<th>Group</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen Y-</td>
<td>912</td>
<td>32.07675</td>
<td>3.050619</td>
<td>92.12669</td>
<td>26.0897 - 38.06381</td>
</tr>
<tr>
<td>Gen X+</td>
<td>48</td>
<td>25.9375</td>
<td>10.55555</td>
<td>73.13101</td>
<td>4.702468 - 47.17253</td>
</tr>
</tbody>
</table>

combined 960 31.76979 2.945056 91.24922 25.99029 - 37.54929

diff 6.139254 13.51844 -20.38991 - 32.66842

diff = mean(Gen Y-) - mean(Gen X+)
Ho: diff = 0
degrees of freedom = 958
t = 0.4541

Ha: diff < 0
Ha: diff != 0
Ha: diff > 0
Pr(T < t) = 0.6751
Pr(|T| > |t|) = 0.6498
Pr(T > t) = 0.3249

**Appendix B—T-test of Means in Cursing Frequency**
## Appendix C — Cursing Frequency Regression Table

<table>
<thead>
<tr>
<th></th>
<th>Daily Cursing Freq.</th>
</tr>
</thead>
<tbody>
<tr>
<td>n=</td>
<td>960</td>
</tr>
<tr>
<td>R-Square</td>
<td>0.0311</td>
</tr>
<tr>
<td>Adj R-Square</td>
<td>0.0281</td>
</tr>
<tr>
<td><strong>Younger Gens</strong></td>
<td></td>
</tr>
<tr>
<td>Coeff.</td>
<td>-4.9123</td>
</tr>
<tr>
<td>Std. Err.</td>
<td>15.1942</td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td></td>
</tr>
<tr>
<td>Coeff.</td>
<td>-36.3712 *</td>
</tr>
<tr>
<td>Std. Err.</td>
<td>6.7880</td>
</tr>
<tr>
<td><strong>Student</strong></td>
<td></td>
</tr>
<tr>
<td>Coeff.</td>
<td>29.6285</td>
</tr>
<tr>
<td>Std. Err.</td>
<td>19.0464</td>
</tr>
<tr>
<td><strong>_cons</strong></td>
<td></td>
</tr>
<tr>
<td>Coeff.</td>
<td>35.3153</td>
</tr>
<tr>
<td>Std. Err.</td>
<td>17.9465</td>
</tr>
</tbody>
</table>
Appendix D—Mean Scores of People of Informal Relations

```
. ttest totinforpers, by(agebin)
Two-sample t test with equal variances

<table>
<thead>
<tr>
<th>Group</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen Y-</td>
<td>831</td>
<td>8.135981</td>
<td>.01018697</td>
<td>2.936606</td>
<td>7.936028 8.335933</td>
</tr>
<tr>
<td>Gen X+</td>
<td>43</td>
<td>7.860465</td>
<td>.4496601</td>
<td>2.948619</td>
<td>7.953014 8.767916</td>
</tr>
</tbody>
</table>

combined: 874 8.122426 .0993154 2.936109 7.927501 8.31735

diff: .2755156 .4593592 -.6260632 1.177094

Ho: diff = 0
diff = mean(Gen Y-) - mean(Gen X+)
t = 0.5998
Ha: diff < 0
degrees of freedom = 872
Pr(T < t) = 0.7256
Pr(|T| > |t|) = 0.5488
Pr(T > t) = 0.2744
```

Appendix E—T-test of Means for People of Informal Relations

Appendix F—Mean Scores of Informal Locations
GENERATIONAL SWEARING DIFFERENCES

Appendix G—T-test of Means for Informal Locations

<table>
<thead>
<tr>
<th>Group</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen Y</td>
<td>902</td>
<td>7.733925</td>
<td>.0942295</td>
<td>2.830024</td>
<td>7.54899 – 7.918859</td>
</tr>
<tr>
<td>Gen X</td>
<td>47</td>
<td>7.446809</td>
<td>.3685214</td>
<td>2.526456</td>
<td>6.705013 – 8.188604</td>
</tr>
<tr>
<td>combined</td>
<td>949</td>
<td>7.719705</td>
<td>.0913865</td>
<td>2.815239</td>
<td>7.540362 – 7.899048</td>
</tr>
<tr>
<td>diff</td>
<td>.2871161</td>
<td>.4213266</td>
<td>-.5397257</td>
<td>1.113958</td>
<td></td>
</tr>
</tbody>
</table>

diff = mean(Gen Y) – mean(Gen X)  

Two-sample t test with equal variances

Pr(T < t) = 0.7521  
Pr(|T| > |t|) = 0.4957  
Pr(T > t) = 0.2479  

Ho: diff = 0  
Ha: diff < 0  
Ha: diff != 0  
Ha: diff > 0  

Appendix H—Regression Table for VOI’s
Appendix I—Mean Scores for People of Intermediate Relations

```
.ttest totinterpers, by(agebin)
```

Two-sample t test with equal variances

<table>
<thead>
<tr>
<th>Group</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>95% Conf. Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen Y-</td>
<td>889</td>
<td>2.850394</td>
<td>.0806524</td>
<td>2.40474</td>
<td>2.692102 3.008685</td>
</tr>
<tr>
<td>Gen X+</td>
<td>48</td>
<td>2.895833</td>
<td>.3673747</td>
<td>2.545247</td>
<td>2.156771 3.634896</td>
</tr>
<tr>
<td>combined</td>
<td>937</td>
<td>2.852721</td>
<td>.0787551</td>
<td>2.41073</td>
<td>2.698164 3.007279</td>
</tr>
<tr>
<td>diff</td>
<td></td>
<td>-.0454396</td>
<td>.357417</td>
<td>-.7468721</td>
<td>.6559929</td>
</tr>
</tbody>
</table>

```
diff = mean(Gen Y-) - mean(Gen X+)
t = -0.1271
Ho: diff = 0
degrees of freedom = 935
Ha: diff < 0
Ha: diff != 0
Ha: diff > 0
Pr(T < t) = 0.4494
Pr(|T| > |t|) = 0.8989
Pr(T > t) = 0.5506
```

Appendix J—T-test of means for People of Intermediate Relations

Appendix K—Mean Scores for Intermediate Locations

Source: Taken from "Perspectives of Swearing in Canadian Generational, University Affiliated Groups" survey.
### Appendix M—Means scores for People of Formal Relations

#### Means scores for People of Formal Relations

<table>
<thead>
<tr>
<th>Group</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen Y-</td>
<td>828</td>
<td>5.076087</td>
<td>.1046711</td>
<td>3.011908</td>
<td>4.870635, 5.281539</td>
</tr>
<tr>
<td>Gen X+</td>
<td>40</td>
<td>5.125</td>
<td>.343983</td>
<td>2.747376</td>
<td>4.246346, 6.003654</td>
</tr>
<tr>
<td>combined</td>
<td>868</td>
<td>5.073411</td>
<td>.1017853</td>
<td>2.998783</td>
<td>4.878567, 5.278116</td>
</tr>
</tbody>
</table>

#### Two-sample t test with equal variances

<table>
<thead>
<tr>
<th>Group</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>diff</td>
<td>- .048913</td>
<td>.4857445</td>
<td>-1.002287</td>
<td>.9044611</td>
<td></td>
</tr>
</tbody>
</table>

Ho: diff = 0
Ha: diff < 0  Ha: diff ≠ 0  Ha: diff > 0
Pr(T < t) = 0.4599  Pr(|T| > |t|) = 0.9198  Pr(T > t) = 0.5401

#### Mean = 1.6
Mean = 2.6
SD = 1.9
SD = 2.6

Source: Taken from "Perspectives of Swearing in Canadian Generational, University Affiliated Groups" survey

### Appendix N—T-test of Means for People of Formal Relations

#### Two-sample t test with equal variances

<table>
<thead>
<tr>
<th>Group</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen Y-</td>
<td>850</td>
<td>1.692941</td>
<td>.0666617</td>
<td>1.943506</td>
<td>1.5621, 1.823782</td>
</tr>
<tr>
<td>Gen X+</td>
<td>37</td>
<td>2.621622</td>
<td>.4372851</td>
<td>2.659901</td>
<td>1.734764, 3.508477</td>
</tr>
<tr>
<td>combined</td>
<td>887</td>
<td>1.73168</td>
<td>.0666603</td>
<td>1.985313</td>
<td>1.600849, 1.86251</td>
</tr>
</tbody>
</table>

#### Two-sample t test with equal variances

<table>
<thead>
<tr>
<th>Group</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>diff</td>
<td>- .9286804</td>
<td>.3321359</td>
<td>-1.580546</td>
<td>-.2768146</td>
<td></td>
</tr>
</tbody>
</table>

Ho: diff = 0
Ha: diff < 0  Ha: diff ≠ 0  Ha: diff > 0
Pr(T < t) = 0.0026  Pr(|T| > |t|) = 0.0053  Pr(T > t) = 0.9974
Appendix O—Mean Scores for Formal Locations

```
ttest totforpla, by(agebin)
```

Two-sample t test with equal variances

<table>
<thead>
<tr>
<th>Group</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen Y-</td>
<td>842</td>
<td>2.003563</td>
<td>.0663671</td>
<td>1.92579</td>
<td>1.873298 2.133828</td>
</tr>
<tr>
<td>Gen X+</td>
<td>35</td>
<td>2.457143</td>
<td>.4644376</td>
<td>2.74765</td>
<td>1.513292 3.400994</td>
</tr>
<tr>
<td>combined</td>
<td>877</td>
<td>2.021665</td>
<td>.0663549</td>
<td>1.965045</td>
<td>1.891432 2.151898</td>
</tr>
<tr>
<td>diff</td>
<td>- .4535799</td>
<td>.3388332</td>
<td>-1.118601</td>
<td>.2114409</td>
<td></td>
</tr>
</tbody>
</table>

\[ \text{diff} = \text{mean(Gen Y-)} - \text{mean(Gen X+)} \quad t = -1.3387 \]

Ho: diff = 0

degrees of freedom = 875

Ha: diff < 0  \quad \text{Pr}(T < t) = 0.0905  \quad \text{Pr}(|T| > |t|) = 0.1810  \quad \text{Pr}(T > t) = 0.9095

Ha: diff ! = 0

Ha: diff > 0

Appendix P—T-test of Means for Formal Locations