



2020

Conflict in communication: Evaluating potential predictors for pro-social communication outcomes

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CONFLICT IN COMMUNICATION: EVALUATING POTENTIAL PREDICTORS FOR
PRO-SOCIAL COMMUNICATION OUTCOMES

By

Paul Villa

A Thesis Submitted to the
Graduate School
In Partial Fulfillment of the
Requirements for the Degree of
MASTER OF ARTS

College of the Pacific
Communication

University of the Pacific
Stockton, California

2020

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PRO-SOCIAL COMMUNICATION OUTCOMES

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DEDICATION

I want to dedicate this work to my parents. Though they never had the opportunity to pursue education beyond their high school diplomas they inspired and facilitated my ability to achieve my degrees and were there at my side through every setback along the way. I love them both. Lastly, I want to dedicate this work to Steven Farias and Tony Bernacchi, my mentors, my coaches, and my dear friends who refused to let me settle.

ACKNOWLEDGMENTS

I'd like to thank my committee members individually. Thank you, Dr. Graham Carpenter for cultivating a classroom environment that has very much informed the way I plan to conduct my classes. Thank you, Dr. Teresa Bergman, for never turning me away from your office despite my refusal to actually schedule a meeting and for offering a calming presence whenever the bureaucracy of higher education had led me to believe the sky was falling. Lastly, Thank you, Dr. Qingwen Dong, for being my advisor for both my undergraduate and graduate degrees at Pacific and for putting up with all the horrible things that position comes with.

I want to thank my officemate and dear friend Andrew Morgan, I am cynical and certainly predisposed to complaining but your constant cheer and affirmation mean the world. You have on multiple occasions dropped everything to help me with issues in my life and I look forward to spending our coaching careers together after our time at Pacific.

Lastly, I want to thank Griffin Cheek and Jennifer Baney who offered the guidance of elder siblings anytime I would barge into their office despite them being swamped with their own theses at the time and who both represent exemplary scholars.

CONFLICT IN COMMUNICATION: EVALUATING POTENTIAL PREDICTORS FOR PRO-SOCIAL COMMUNICATION OUTCOMES

Abstract

By Paul Villa

University of the Pacific
2020

The importance of communication in every aspect of our lives cannot be understated, in many ways it is the foundation upon which society rests. As a result of communication being ubiquitous in nature, it becomes inevitable that at some point conflict will occur as competing ideas, world views, or beliefs are exchanged. This inevitability, therefore, necessitates researchers make attempts to better understand the role conflict tendencies can play in influencing communication variables that are generally understood to be pro-social. The researcher administered a questionnaire to 226 college students from one private university and three community colleges on the west coast using various modified scales examining tolerance for disagreement, verbal aggressiveness, self-esteem, communication competence, and evaluation apprehension. The data from the surveys were analyzed to determine whether the independent variables could in isolation or in combination serve as predictors for self-esteem, communication competence, and evaluation apprehension. The analysis revealed that tolerance for disagreement was significantly positively correlated with self-esteem and communication competence and was significantly negatively correlated with evaluation apprehension. Verbal aggressiveness was found to be significantly negatively correlated with communication competence and the construct of “Pro-Social Communication Outcomes” which combined all

three dependent variables. The construct this work refers to as “Conflict Tendencies” which combines both independent variables was found to be significantly negatively correlated with communication competence and Pro-Social Communication Outcomes. Regression analysis showed that the combination of tolerance for disagreement and verbal aggressiveness demonstrated that tolerance for disagreement and verbal aggressiveness had some limited predicting power regarding self-esteem, communication competence, and evaluation apprehension. These results suggest that there are important relationships between communication variables associated with conflict and pro-social communication outcomes.

Keywords: Conflict, Tolerance for Disagreement, Verbal Aggressiveness, Self-Esteem, Communication Competence, Evaluation Apprehension.

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CHAPTER 1: THE PROBLEM

Statement of the Problem

The nature of communication and its ability to facilitate advocacy come with the all but assured side effect of producing conflict. The skills we teach as communication educators are often intended to minimize the downsides associated with conflict in communication situations but it is simultaneously important to note that conflict need not be an exclusively negative phenomenon. Conflict, in line with advocacy and argumentation, can be understood as a means of problem-solving when opposing opinions, world views, or methodologies are at odds with one another. While in many instances individuals and societies are quick to look down upon individuals who demonstrate contentious personality qualities or communication patterns such as perceived verbal aggression or tolerance for disagreement, it is potentially the case that these qualities are exactly what is needed to succeed in undergraduate communication courses centered around personal advocacy and problem solving such as introduction to Public Speaking and Argumentation and Debate. If Tolerance for Disagreement and Verbal Aggressiveness can be demonstrated to have a predictive relationship with outcomes for students that are generally understood be positive, such as Self-Esteem, Communication Competence, and Evaluation Apprehension, then revealing that relationship- whether positive or negative- may be an essential step in providing the best education possible to our students, one which affords them all the tools necessary to go forth and advocate whether personally, professionally, or academically. Notably, identifying such a relationship in this study in conjunction with identifying whether or not advocacy courses can be tailored to produce increases or decreases in Tolerance for Disagreement and/or Verbal Aggressiveness in future research would enable instructors to more

specifically design their classes in ways that produce measurable changes in Self-Esteem, Communication Competence, and Evaluation Apprehension.

Purpose of the Thesis

This study seeks to understand the implications conflict tendencies as represented by verbal aggressiveness and tolerance for disagreement have on self-esteem, communication competence, and evaluation apprehension, three variables understood to facilitate student success in communication courses. In particular, the researcher is interested in the implications identifying these relationships would have in the context of advocacy based communication courses like Public Speaking and Argumentation and Debate. Given that one of the most profound effects of those courses is requiring students to confront ideas they potentially disagree with, identifying this relationship would have implications for how advocacy based communication courses could foster pro-social communication outcomes more generally.

Defining Key Terms

Independent Variables: Conflict Tendencies

Tolerance for disagreement. Tolerance for Disagreement, a variable originally described by Richmond and McCroskey (1979) but presented here in its updated form as developed by Teven, Richmond, and McCroskey (1998) is designed to measure the degree to which an individual can tolerate other people disagreeing with what the individual believes to be true. People with high Tolerance for Disagreement are likely to be able to deal with more disagreement than those who score lower.

Verbal aggressiveness. Verbal Aggressiveness is conceptualized as a personality trait that predisposes persons to attack the self-concepts of other people instead of or in addition to, their positions on topics of communication and is measured in this work using the Verbal

Aggressiveness Scale (Verbal Aggressiveness Scale) as formulated by Infante and Wigley (1986).

Dependent Variables: Pro-Social Communication Outcomes

Self-Esteem. Self-Esteem and in particular, high Self-Esteem, is perceived as a positive character trait within both the college classroom and the world at large. The Rosenberg Self-Esteem Scale, a widely used self-report instrument for evaluating individual self-esteem, provides a unidimensional measure of one's self-worth (1965). Self-Esteem is defined along two dimensions: self-efficacy and self-worth (Gecas, 1982).

Communication competence. Within the context of communication course classrooms, one of the most sought after outcomes is an increase in students' communication competence. Wright et. al. describe it as "a persons' abilities to demonstrate skills, either innate or developed, to accomplish communicative goals" (2013). The Self-Perceived Communication Competence scale was developed by McCroskey and McCroskey to obtain information concerning how competent people feel they are in a variety of communication contexts and with a variety of types of receivers (1988).

Evaluation apprehension. Evaluation Apprehension in the context of communication education measures student anxiety when preparing to undergo or while undergoing evaluation (Richmond, Wrench, and 200Gorham, 2001). Evaluation Apprehension was eventually reconceptualized for the classroom and for the purpose of this work refers to students' anxiety when preparing for or during evaluation and is measured by the Evaluation Apprehension Measures which was produced in the previously cited 2001 work.

Significance of the Study

Examining the conflict tendencies of students as measured by tolerance for disagreement and verbal aggressiveness as predictors of communication competence, self-esteem, and evaluation apprehension has yet to be done. The independent variables were specifically chosen because of the lack of research on their predictive power for positively perceived communication and educational outcomes as well as their specificity to communication courses such as Public Speaking and Argumentation and Debate which both find advocacy and problem-solving at their core. The dependent variables of communication competence, self-esteem, and evaluation apprehension all have implications for the personal, professional, and academic success of students and similarly are core to the communication curriculum students undertake. Ensuring the best outcomes for students can at times require us to challenge our preconceived notions of which patterns of behavior and approaches to our courses are best for student success, as such, identifying the potential relationship, whether positive or negative, between these conflict tendencies and positively perceived outcomes could be an essential step to designing communication courses and fostering classroom environments that benefit our students.

CHAPTER 2: REVIEW OF LITERATURE

Independent Variables

Conflict Tendencies- Tolerance for Disagreement and Verbal Aggressiveness

One of the marvels of the human condition is that for all our similarities each person represents a unique collection of experiences that gives birth to a personalized world view that can never be entirely in line with those of another. As we develop interpersonal relationships with one another it therefore becomes inevitable that disagreements will occur and produce conflict. A variety of works have focused on the nature of conflict (Coser, 1956; Fisher, 1970; Killman & Thomas, 1977) however McCroskey and McCroskey note that these studies failed to distinguish between conflict which produces negative interpersonal outcomes and conflict on the basis of purposeful disagreement which often leads to better decisions and positive outcomes (1998). While disagreement is ubiquitous in human social interaction, the products of disagreement need not be destructive and it is often the case that disagreement if channeled in the proper way can be entirely constructive (Coser, 1956). The initial research into Tolerance for Disagreement in a communication context centered not around the classroom but rather around the office and attempted to understand how different managerial styles and employee dispositions affect outcomes for employees (Richmond, McCroskey, 1979). Building upon these works, McCroskey and McCroskey's interest in conflict and its potential for positive outcomes lead them to develop an instrument for measuring conflict which first appeared in their work *Measure of Tolerance for Disagreement*, which produced a 15-item version of a Tolerance for Disagreement scale (1998).

H1: Verbal Aggressiveness Will Have a Negative Relationship With Communication**Competence**

This hypothesis is feasible to study because studies suggest that verbal aggressiveness is generally viewed a negative or antisocial personality trait based on the willingness of those high in this trait to make personal attacks upon those they communicate with (Infante & Wigley, 1986) whereas willingness to communicate, one of the outcomes associated with high communication competence, is understood to be a prosocial tendency that facilitates positive interaction with others (McCroskey & Richmond, 1987). The research from Anderson in 1998 centering around the relationship between communication flexibility and verbal aggressiveness has already established a negative relationship in the opposite direction so this at least provides evidence of a connection between the two variables.

H4: Verbal Aggressiveness Will Have a Positive Relationship With Evaluation**Apprehension**

This is feasible to study because as outlined by Infante and Wigley in 1986, those high in verbal aggressiveness are predisposed to rejecting and attacking the the personhood as well as arguments, positions, and opinions of others whereas evaluation apprehension is inherently tied to the fear of an evaluation and frequently unwillingness to even discuss said evaluation post fact (Richmond, Wrench, & Gorham, 2001). In addition, researchers have demonstrated a relationship between the two variables in question but with evaluation apprehension as a predictor of aggression in general rather than testing the predictive power in the opposite direction (1974). As such, the question of whether or not verbal aggression predicts evaluation apprehension warrants investigation.

Conflict in the context of communication need not be limited to measurements of disagreement but rather can also be understood as reflected in personality traits that manifest in communication practices that are viewed as anti-social or otherwise combative. One such personality trait is Verbal aggressiveness, which is, "conceptualized as a personality trait that predisposes persons to attack the self-concepts of other people instead of, or in addition to, their positions on topics of communication" (Infante & Wigley, 1986). The works on Verbal aggressiveness in the communication field can trace their roots back to Bandura's seminal work, *Aggression: A social learning analysis*, which documents his experiments on aggression in the context of social learning theory (1973). In a communication context, verbally aggressive messages attack an individual's self-concept in order to make them feel less favorably about themselves. The research bears out that one of the most fundamental products of verbally aggressive communication is self-concept damage of those one communicates with (Infante, Trebing, Shepherd & Seeds, 1984), in other words recipients of verbal aggression feel less valuable or valid as individuals immediately afterwards. Furthermore, verbal aggressiveness in the context of the college classroom has been investigated but those inquiries focused on the impact that the verbal aggressiveness of instructors had on student outcomes rather than the effects that student verbal aggressiveness had on communication outcomes (Meyers & Knox, 1999). While the existing literature effectively describes the impacts verbal aggressiveness has on receivers of verbally aggressive communication with regards to measures like self-esteem there is a lack of research focusing on the potential impacts these patterns of communication have on the senders of such messages and as such further works are critical to address this topic.

H2: Tolerance For Disagreement Will Have a Positive Relationship With Communication Competence

This hypothesis is feasible to study because Communication Competence measures how confident an individual feels in a variety of communication situations (McCroskey & McCroskey, 1988) whereas Tolerance for Disagreement is a measurement of the degree to which one can tolerate people disagreeing with that they believe to be true in the context of communication situations (Teven, Richmond, & McCroskey, 1998). It therefore stands to reason that those who are confident in a variety of communication situations would be better able to handle situations in which their beliefs or opinions are being challenged. Lastly, the research of Anderson in 1998 has already established a positive relationship between these two variables, though that relationship was only tested in the opposite direction of the relationship proposed by this hypothesis, meaning it evaluated Communication Competence as a predictor of Tolerance for Disagreement rather than the other way around.

H3: Tolerance For Disagreement Will Have a Positive Relationship With Self-Esteem

This is feasible to study because Tolerance for Disagreement measures one's tolerance for individuals to disagree with their beliefs or opinions (Teven, Richmond, & McCroskey, 1998) and is closely related to the personality trait of agreeableness which Robins et. al. in 2001 indicated was somewhat predictive of high self-esteem.

Research grouping tendencies associated with conflict in communication (verbal aggressiveness, argumentativeness, etc) have been recognized as influencing communication behaviors previously. It is worth noting that while there has been no research on the exact topic of evaluating the effectiveness of Tolerance for Disagreement and Verbal Aggressiveness Scale as a singular construct with predictive power for other communication outcomes, adjacent research has been conducted by Infante, Rancer, and Wigley in 2011 on the validity of Verbal Aggressiveness and Argumentativeness. In addition, researchers have done studies utilizing both

Tolerance for Disagreement and Argumentativeness as predictors of enjoyment of working with a group and found that both variables had similar predictive power for prosocial outcomes (Madlock, Kennedy-Lightsey, & Myers, 2007).

H6: Conflict Tendencies As a Construct (Verbal Aggressiveness Scale and Tolerance for Disagreement) Will Act As a Predictor of Pro-Social Communication Outcomes As a Construct (Self-Perceived Communication Competence, Self-Esteem, Evaluation Apprehension Measurement)

The justifications for the previous hypotheses are explanative of why this question would likely be feasible. Given that there has not been a work this researcher is aware of that evaluates Verbal Aggressiveness Scale and Tolerance for Disagreement as a singular construct or attempts to establish a relationship between those two variables and positive communication outcomes it is important to potentially take a first step in remedying this deficiency in Communication research. Despite a deficiency of studies on Tolerance for Disagreement and Verbal Aggressiveness Scale as elements of a singular construct, Infante, Rancer, and Wigley have done work concerning the validity of the Verbal Aggressiveness Scale and Argumentativeness Scale as predictors of communication outcomes (2011) and Madlock, Kennedy-Lightsey, & Myers have found Tolerance for Disagreement and the Argumentativeness Scale fall within a similar category of variables with regards to the traits they measure and to be similarly effective in predicting prosocial outcomes.

Dependent Variables

Communication Competence

The earliest model of communication competence comes from Wiemann in 1977 and conceptualizes competence as having five elements: interaction management, empathy,

affiliation/support, behavioral flexibility, and social relaxation with interaction management playing a central role. The research into communication competence in the years after Wiemann's identification is dominated by McCroskey. In 1970 McCroskey was focusing on measures of communication-bound anxiety, the establishment of a measure for communication competence by Wiemann in 1977 gave way to McCroskey's initial endeavors in 1980 when he studied communication competence regarding its association with fear and anxiety in classrooms. One of the most important works during that span included the development of the Self-Perceived Communication Competence scale by McCroskey and McCroskey, which sought to obtain information concerning how competent people feel they are in a variety of communication contexts and with a variety of types of receivers (1988). Wright et. al. describe it as "a persons' abilities to demonstrate skills, either innate or developed, to accomplish communicative goals" (2013). One of the outcomes associated with a high level of self-perceived communication competence is willingness to communicate, an outcome which is generally understood as facilitating prosocial interactions (McCroskey & Richmond, 1987). While communication competence has specifically not been analyzed in relation to verbal aggressiveness and tolerance for disagreement, researchers have analyzed the relationship between Communication Flexibility (Martin and Rubin, 1994) and these variables. Anderson found that communication flexibility was positively related with tolerance for disagreement and negatively related with verbal aggressiveness (1998). It goes without saying that in the context of communication course classrooms facilitating the communication competence of students is a top priority, and as such identifying factors which can contribute to increases in competence are of the utmost importance.

Self Esteem

In 1965 Rosenberg published *Society and the Adolescent Self-Image* which featured the first large-scale sample survey of the self-concept and included the Rosenberg Self-esteem scale, which is a ten item instrument that attempts to measure global self-worth. Self-esteem itself can more generally be understood to refer to a person's overall positive perception of the self (Gecas 1982; Rosenberg 1990; Rosenberg et al. 1995). It has two dimensions as noted by Gray-Little, Williams, and Hancock (1997) which are Self Confidence and Self Depreciations. Alternative models of self-esteem including Gecas 1991 work that describe self-esteem as similarly having two dimensions but instead labels them as self-efficacy, the degree to which one feels they are a capable actor, and self worth, that is defined as one's general appraisal of them as an individual. The impacts of high self-esteem for one's general well being have been effectively documented but of particular interest for this work are the educational outcomes associated with the variable. Baumeister, Heatherton, and Tice find that high-self esteem is positively related to educational achievement but also note that high self-esteem can lead to faulty assessments of one's abilities and as such, lead individuals to make commitments which they are incapable of meeting (1993). It is noteworthy that recent research from Rahmi et al. in 2017 notes that student self-efficacy is positively correlated with the communication competence of students specific to math courses. A final note is that Robins et. al. in 2001 conducted research comparing self-esteem with the big five personality traits, one of which is agreeableness and found that 34% of the variance in high self-esteem could be explained by the big five and in particular with individuals being somewhat agreeable.

Evaluation Apprehension

Evaluation Apprehension was first described in the field of psychology by Rosenberg who noted that subjects that were to undergo evaluation were introducing confounding variables

into the results on the basis of their presumption or outright confirmation that they were to be evaluated (1965). A 1969 follow up by Rosenberg, Milton, Rosenthal, and Rosnow noted that since Rosenberg's original article, Evaluation Apprehension had defused in both application and meaning. Evaluation Apprehension was eventually reconceptualized for the classroom and for the purpose of this work refers to students' anxiety when preparing for or during evaluation as outlined in Richmond, Wrench, and Gorham's 2001 work, *Communication, affect, and learning in the classroom* which also produced the Evaluation Apprehension Measure in order to understand how classroom anxiety was affecting the educational outcomes of students. While evaluation apprehension has bridged the gap from psychological experiments to the classroom, one bridge it has yet to cross is a specific application to the performance elements of communication courses. The existing Evaluation Apprehension Measurement frames 16 of its 20 items exclusively around evaluation in the forms of exams and tests rather than a more general understanding of evaluation that might apply to the presenting of speeches or debates for evaluation (Richmond, Wrench, & Gorham, 2001). A recent meta analysis conducted by Jahedizadeh, Ghonsooly, and Fatemi in 2019 attempted to resolve some of the gaps associated with the application of Evaluation Apprehension to speeches rather than exams and tests, the findings concluded that students who believe their speech is going to be graded report increased anxiety compared to students who believe their speech will not be graded. While the research connecting the predictive power of conflict tendencies on evaluation apprehension has been scant, there is existing literature establishing a predictive relationship in the opposite direction. Experimental research by Turner and Simons found that increases in evaluation apprehension were correlated with decreases in aggressive behavior in controlled laboratory settings (1974).

H5: Tolerance For Disagreement Will Have a Negative Relationship With Evaluation Apprehension

This will be feasible to study because high tolerance for disagreement is predicated on one's willingness to have others disagree with their opinions, beliefs, arguments, etc (Teven, Richmond, & McCroskey, 1998) whereas low evaluation apprehension is associated with a high degree of comfortability [with] having one's opinions and work be judge or evaluated (Richmond, Wrench, & Gorham, 2001).

Summary

A review of the literature reveals a plethora of work centered around each of these five variables independently but. also reveals a failure to examine these studies in conjunction with one another. Tolerance for Disagreement thus far has primarily been measured in the context of the workplace rather than in the context of classrooms and especially not in the context of advocacy-based communication courses. Verbal aggressiveness has previously been applied in the college classroom but the subjects whose aggressiveness was being measured were instructors rather than students and this research did not focus on verbal aggressiveness relationships with our variables of interest. Lastly, evaluation apprehension as of now has been extensively studied but primarily in the context of written exams and tests rather than on the evaluation of communication performances. A lack of research tailored to the relationship between these conflict variables' potential relationship with positively perceived communication outcomes such as self-esteem, communication competence, and evaluation apprehension warrants further investigation in order to ensure communication educators have the necessary information to effectively educate their students.

CHAPTER 3: METHODOLOGY

Sample

Participants for this study included 226 individuals who were between 18 and 51 years of age. They were all either currently enrolled college students or college graduates within the last 5 years. The population was chosen because this study seeks to provide information to collegiate instructors and in particular communication faculty who are exposed to students from a wide array of majors. Additionally, this survey utilized both paper and digital surveys that were disseminated to faculty familiar with the researcher. This was a convenience sample of respondents that made themselves available during the timeframe that the survey was available. It is worth noting that the outbreak of the COVID-19 Virus at the time of this work drastically implicated the ability of the researcher to disseminate paper surveys, which resulted in obtaining 203 of the 226 responses from the digital format.

Procedure

For the paper surveys, a self-administered questionnaire was distributed to students at a community college in Northern California in an argumentation and debate course. The digital version of the survey, which featured identical questions and response choices to the paper survey was disseminated to communication professors at colleges and universities in Northern California. The link to that survey was then passed on to students who self-administered the survey via the survey platform Qualtrics. The researcher's university institutional review board reviewed, approved, and granted permission for this study prior to the research being conducted. All respondents to the survey were 18 years of age or older and voluntarily completed the survey

with the ability to terminate consent at any point. The survey took approximately 10 to 15 minutes to complete.

Measurement

The questionnaire contained six sections to measure the participant's personal reports of behavior or beliefs. The specific sections pertained to tolerance for disagreement, verbal aggressiveness, self-esteem, communication competence, evaluation apprehension, and then a section that recorded demographic information. The independent variables for this work were tolerance for disagreement, verbal aggressiveness, and a construct combining the two referred to as Conflict Tendencies. The dependent variables for this work were self-esteem, communication competence, evaluation apprehension, and a construct combining the three referred to as Pro-Social Communication Outcomes.

Section 1 is designed to measure *tolerance for disagreement*. This section measures the degree to which an individual can tolerate other people disagreeing with what they believe to be true. There are fifteen items on this scale which is based on Richmond and McCroskey's 1979 work on tolerance for disagreement but is presented here in its 1998 version as described by Teven, Richmond, and McCroskey. There are seven items worded positively and eight worded negatively which thus were reverse coded during the analysis stage. The reverse coded items were numbers 3, 4, 6, 9, 10, 11, 12, and 13. Each item is evaluated using a standard 5 point Likert scale with "1" denoting strongly disagreeing and "5" denoting strongly agreeing. The reliability for this scale reported at $\alpha = .826$.

Section 2 is designed to measure *verbal aggressiveness*. This section measures the degree to which one is willing to attack another's self-concept instead of or in addition to their argument. There are twenty items on this scale which was derived by Infante and Wigley in

1986. Ten of the items on this scale are worded positively and ten are worded negatively and thus were reverse coded during the analysis stage. The reverse coded items were numbers 1, 3, 5, 8, 10, 12, 14, 15, 17, and 20. Each item is evaluated using a standard 5 point Likert scale with “1” denoting strongly disagreeing and “5” denoting strongly agreeing. The reliability for this scale reported at $\alpha = .841$.

Section 3 is designed to measure *self-esteem*. This section measures the degree to which one’s self-concept is positive and has two dimensions, self-efficacy, and self-worth. There are ten items on this scale which is based on the work of Rosenberg (1965). There are five items worded positively and five items worded negatively and thus were reverse coded during the analysis stage. The reverse coded items are numbers 3, 5, 8, 9 and 10. Each item is evaluated using a standard 5 point Likert scale with “1” denoting strongly disagreeing and “5” denoting strongly agreeing. The reliability for this scale reported at $\alpha = .839$.

Section 4 is designed to measure *communication competence*. This section measures the degree to which one feels competent communication across a variety of scenarios. There are twelve items on this scale which is known as the Self-Perceived Communication Competence Scale developed by McCroskey and McCroskey in 1988. All items on this scale are worded positively so no recoding was required. Each item is evaluated using a standard 5 point Likert scale with “1” denoting strongly disagreeing and “5” denoting strongly agreeing. The reliability for this scale reported at $\alpha = .860$.

Section 5 is designed to measure *evaluation apprehension*. This section measures the degree to which ones feel anxiety when preparing for or undergoing evaluation. This scale, in particular, was modified by the researcher. The original scale developed by Richmond, Wrench, and Gorham in 2001 called the Evaluation Apprehension Measurement featured questions

worded to measure anxiety associated with tests or exams. Items 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 14, 15, 17, 18, 19 and 20 all featured the words test and/or exam. Since this work is concerned with evaluation apprehension in communication courses every occurrence of the word “test” was replaced with the word “speech(s)” and every occurrence of the word “exam” was replaced with the word “debate(s)”. There are ten items worded positively and ten items worded negatively that thus were reverse coded during the analysis stage. The reverse coded items are numbers 3, 4, 6, 10, 12, 13, 15, 16, 18, and 19. Each item is evaluated using a standard 5 point Likert scale with “1” denoting strongly disagreeing and “5” denoting strongly agreeing. The reliability for this scale reported at $\alpha = .925$.

Section 6 is designed to measure the demographic information about the respondents to the survey. It contains five questions regarding gender, ethnicity, class standing, age, and major course of study in college. These items allow the researcher to segment the responses of the population in this study. This section may allow the researcher to identify differences in all five variables pertaining to gender in particular.

CHAPTER 4: RESULTS

This chapter documents the findings from the statistical analysis of the data. Based on these findings, some important and hopefully useful information can be garnered in terms of understanding the population under study.

Demographic Information

Demographic background information was collected from respondents. The sample for this work consists of a convenience sample of undergraduates and recent college graduates from within the last five years. Participants in the study were enrolled in classes at the University of the Pacific and community colleges across Northern California (N=226). Class standings included freshman, sophomores, juniors, senior and recent college graduates (8.4%,11.2%,12.9%,20.8%, and 46.6% respectively). The average year in school was 3.86 (SD=1.339). The respondents were from 18 to 51 years of age. The average age of the sample was 26.5 (SD=7.185) and with 77% of respondents being 30 or younger and 38.8% being 23 or under. The gender breakdown for the study was 63.9% female, 33.7% male, 11.9% non-disclosure, and 1.3% other. Ethnically, the sample featured 6 African American, 17 Latinx, 137 Caucasian, 4 Native American, 15 Asian, and 48 respondents who chose not to disclose their ethnicity.

Independent Variables and Dependent Variables

Analysis was conducted on the reliability of all of the scales used in this work and all were found to be highly reliable. The Tolerance for Disagreement Scale reported a Cronbach's Alpha of .826 over its 15 items. The Verbal Aggressiveness Scale reported a Cronbach's Alpha of .841 over its 20 items. Rosenberg's Self-Esteem Scale reported a Cronbach's Alpha of .839

over its 10 items. The Self-Perceived Communication Competence Scale reported a Cronbach's Alpha of .860 over its 12 items. The Evaluation Apprehension Measurement reported a Cronbach's Alpha of .925 over its 20 items. In addition to these variables, the proposed constructs of Conflict Tendencies (Tolerance for Disagreement, Verbal Aggressiveness Scale) reported a Cronbach's Alpha of .835 and Pro-Social Communication Outcomes (Self-Esteem, Self-Perceived Communication Competence, Evaluation Apprehension Measurement) reported a Cronbach's Alpha of .745.

Table 1

Reliability of Tolerance for Disagreement, Verbal Aggressiveness, Self-Esteem, Communication Competence, Evaluation Apprehension, "Conflict Tendencies", and "Pro-Social Communication Outcomes" Scales

Variables	Cronbach's Alpha	N of Items
Tolerance for Disagreement	.826	15
Verbal Aggressiveness	.841	20
Self-Esteem	.839	10
Communication Competence	.860	12
Evaluation Apprehension	.925	20
"Conflict Tendencies"	.835	35
"Pro-Social Communication Outcomes"	.745	42

Each of the scales utilized in this survey used a standard 5 point Likert scale for it's responses. A response of "5" would indicate one Strongly Agreed with a prompt and a response of "1" would indicate one Strongly Disagreed. The digital surveys included textual labels as well as being ordered from 1 to 5 so any confusion about what a given numerical response corresponded to was likely minimized.

Table 2 records the descriptive statistics for the independent and dependent variables in the proposed research hypotheses. The mean score for Tolerance for Disagreement was (M=3.027) and the standard deviation was .653, indicating that the average respondent neither agreed more disagreed with the items in the scale and as such are not particularly predisposed to tolerating or rejecting challenges to their ideas or beliefs. The mean score for Verbal Aggressiveness was (M=2.089) and the standard deviation was .667, these scores indicate that the average respondent is low in verbal aggressiveness and disagrees with the use of insults or personal attacks on others. The mean score for Self-Esteem was (M=3.424) and the standard deviation was .876, this indicates that the average respondent feels very slightly positive about themselves in terms of self-worth and self-efficacy. The mean score for Communication Competence was (M=4.335) and the standard deviation was .711, this score indicates that the average respondent feels competence across a variety of communication scenarios if not very competent. The mean score for Evaluation Apprehension was (M=3.049) and the standard deviation was .940, this indicates that the average respondent does not feel particularly anxious or particularly comfortable when preparing for or presenting a debate for evaluation. Each item was measured on a 5-point Likert type scale measuring from 1 strongly disagree to 5 strongly agree.

Table 2

Descriptive Statistics for Variables, Independent Variables Reported in Bold

Variables	M	SD	N
Tolerance for Disagreement	3.027	.653	213
Verbal Aggressiveness	2.089	.667	204
Self-Esteem	3.424	.876	202
Communication Competence	4.335	.711	201
Evaluation Apprehension	3.049	.940	201

Given that the proposed constructs of Conflict Tendencies and Pro-Social Communication Outcomes were found to be reliable through statistical analysis in SPSS (Cronbach's Alphas of .835 and .814 respectively) a descriptive statistical analysis was also performed on the constructs. The mean score for Conflict Tendencies was (M=2.587) with a standard deviation of .534. The mean score for Pro-Social Communication Outcomes was (M=3.603) with a standard deviation of .386. The data for the constructs can be found in Table 3.

Table 3

Descriptive Statistics for Constructs, Independent Variables Reported in Bold

Construct	M	SD	N
Conflict Tendencies	2.587	.534	213
PSCO	3.603	.386	202

Correlation Analysis

A correlation analysis was run to reveal any potential relationships between the variables proposed in the hypotheses. Table 4 shows a correlation matrix of the bivariate correlations between tolerance for disagreement, verbal aggressiveness, self-esteem, communication competence, evaluation apprehension, conflict tendencies, and pro-social communication outcomes. The table further demonstrates statistically significant correlations obtained within the study. Tolerance for disagreement was found to be significantly negatively correlated with evaluation apprehension ($r = -.323, p < .01$) and significantly positively correlated with self-esteem ($r = .161, p < .05$) and communication competence ($r = .334, p < .01$). Verbal aggressiveness was found to be significantly negatively correlated with communication competence ($r = -.210, p < .01$) and pro-social communication outcomes ($r = -.179, p < .05$). Conflict tendencies were found to be significantly negatively correlated with self-esteem ($r = -.183, p < .01$). Self-esteem was found to be significantly negatively correlated with evaluation apprehension ($r = -.343, p < .01$) and significantly positively correlated with communication competence ($r = .289, p < .01$). Communication competence was found to be significantly negatively correlated with evaluation apprehension ($r = -.465, p < .01$).

The analysis provided evidence to support H1 that, “Verbal Aggressiveness will have a negative relationship with Communication Competence” based on ($r = -.210, p < .01$). This analysis also provided evidence to support H2 that, “Tolerance for Disagreement will have a positive relationship with Communication Competence” based on ($r = .223, p < .01$). This analysis provided evidence to support H3 that, “Tolerance for Disagreement will have a positive relationship with Self-Esteem” based on ($r = .161, p < .05$). This analysis did not provide evidence to support H4 that, “Verbal Aggressiveness will have a positive relationship with

Evaluation Apprehension” based on ($r = .043$). This analysis provided evidence to support H5 that, “Tolerance for Disagreement will have a negative relationship with Evaluation Apprehension” based on ($r = -.323$, $p < .01$).

Table 4
Correlation Analysis for All Variables and Constructs

Variables	M	SD	α	1	2	3	4	5	6	7
1. Tolerance for Disagreement	3.027	0.653	0.826	x	.349	.161*	.223**	-.323**	.751**	.000
2. Verbal Aggressiveness	2.089	0.667	0.841	.349	x	-.109	-.210**	.043	.761**	-.179*
3. Self-Esteem	3.424	0.876	0.839	.161*	-.109	x	.289**	-.343**	.034	.652**
4. Communication Competence	4.335	0.711	0.86	.223**	-.210**	.289**	x	-.465**	.006	.460**
5. Evaluation Apprehension	3.049	0.94	0.925	-.323**	.043	-.343**	-.465**	x	-.183**	.269**
6. Conflict Tendencies	2.587	0.534	0.835	.751**	.761**	.034	.006	-.183**	x	-.120
7. Pro-Social Comm Outcomes	3.603	0.386	0.814	.000	-.179*	.652**	.460**	.269**	-.120	x
** correlation is significant, $p < .01$										
* correlation is significant, $p < .05$										

Regression Analysis

A regression analysis was conducted to determine the strength of Conflict Tendencies as a predictor for the dependent variable Pro-Social Communication Outcomes. This analysis is intended to provide insight into whether a model is effective at predicting variance between independent and dependent variables. The beta weights from the analysis can help in understanding the degree to which a model has predictive capacity. The beta weights are presented in Table 5 below.

Table 5
Regression Conflict Tendencies as a Predictor of Pro-Social Communication Outcomes

Predictor Variables	B	SE	β	t	p
Conflict Tendencies	-.094	.055	-.120	-1.706	.090

The regression analysis did not provide meaningful evidence to support H6 that, “Conflict Tendencies as a construct (Verbal Aggressiveness Scale and Tolerance for Disagreement) will act as a predictor of Pro-Social Communication Outcomes as a construct (Self-Perceived Communication Competence, Self-Esteem, Evaluation Apprehension Measurement)” as ($r = -.120$) and ($r^2 = .014$) suggests that only 1.4% of the variation in the dependent variable of Pro-Social Communication Outcomes can be explained by the independent variable of Conflict Tendencies. These reports in combination with ($p > .05$) and ($t = -1.706$) are insufficient to attribute explanatory power to Conflict Tendencies.

CHAPTER 5: DISCUSSION

Implications of the Study

This work has produced a number of important findings with regards to understanding how Tolerance for Disagreement and Verbal Aggressiveness both in isolation and when unified as a construct can serve as predictors of Pro-Social Communication Outcomes such as Self-Esteem, Communication Competence, and Evaluation Apprehension. To contextualize the results of this analysis we must consider the implications associated with the hypotheses presented in this work and whether or not they were validated and understand the impact the modification to the existing Evaluation Apprehension Measurement had in this work.

The first key takeaway is the scale reliability for the modified Evaluation Apprehension Measurement. Altering the items in the scale to account for speeches and debates did not undermine the reliability of the measurement, in fact, the altered scale reported at an exceptionally high Cronbach's Alpha of .934. This at a minimum indicates that researchers of communication education or communication educators themselves can rely upon this modified version of the scale when trying to gauge the anxiety their students are experiencing associated with the preparation, presentation, and evaluation of speeches and debates.

Second, it is important to note that the nature of the sample for this work likely undermines its ability to be generalized across all demographics. The limitations imposed on the researcher's survey collection associated with the COVID-19 Pandemic meant that on top of this work's frame being focused on students from communication courses, this is a convenience sample and certainly non random and in addition is not necessarily reflective of national demographic trends. In particular, it would not be recommended to generalize the findings of

this work to African American's given that only 6 of the respondents were African American. These factors in combination with the inability to reach the desired sample size outlined during the proposal process (350 online and 150 digital) means that generalizing from a relatively small sample size is likely ill advised. To be concise, generalizing the findings of this study to populations beyond communication students in Northern California could potentially be a misstep given the nature of the sample.

Hypothesis 1 stated, "Verbal Aggressiveness will have a negative relationship with Communication Competence." This hypothesis is supported by my correlation analysis based on ($r = -.210, p < .01$). In other words, as an individual's verbal aggressiveness increases their communication competence decreases. This finding is not particularly surprising, as explained in the literature review, Verbal Aggressiveness is generally viewed as bad communication practice or is not viewed as a pro-social behavior. Given this assumption, it makes sense that those who tend to insult others and their arguments rather than engage in a respectful exchange of ideas would be lower in communication competence. The interesting aspect though is that the Communication Competence metric that we used is based on Self-Perceived Communication Competence. In other words, this analysis does not indicate that verbally aggressive individuals are judged by others to lack communication competence but rather indicates that those who are verbally aggressive view *themselves* as lacking in communication competence.

Hypothesis 2 stated, "Tolerance for Disagreement will have a positive relationship with Communication Competence". This hypothesis is supported by my correlation analysis based on ($r = .223, p < .01$). More concretely, as an individual's tolerance for disagreement increases their communication competence increases. This finding is again not surprising, in fact, a willingness to remain comfortable in communication scenarios where others are rejecting your views is in

line with just what Communication Competence is measuring, the degree to which one feels comfortable across a variety of situations. The implication of this hypothesis is that if instructors could cultivate Tolerance for Disagreement in their students they would simultaneously be doing them a great service in increasing their general comfort with communication situations, though this relies on the assumption that self perceived communication competence is applicable to real world scenarios and an idealistic measure independent of the weight of the moment associated with many communication scenarios.

Hypothesis 3 stated, “Tolerance for Disagreement will have a positive relationship with Self-Esteem” This hypothesis is supported by my correlation analysis based on ($r = .161$, $p < .05$). More concretely, as an individual’s tolerance for disagreement increases so does their self-esteem. This is another finding in line with common sense because; individuals who are willing to engage with individuals who disagree with them are likely to have high self-esteem or otherwise not feel threatened by opposition to their ideas or beliefs. The implication in this instance is similarly important in the context of communication education: should it be demonstrated that advocacy courses offer a unique opportunity to cultivate tolerance for disagreement, instructors potentially have the ability to directly benefit the self-esteem of students in tandem with their willingness to be challenged on their beliefs.

Hypothesis 4 stated, “Verbal Aggressiveness will have a positive relationship with Evaluation Apprehension” This hypothesis is not supported by my correlation analysis based on ($r = .043$). More concretely, there is not evidence to support the claim that as an individual's verbal aggressiveness increases so does their evaluation apprehension. This finding is somewhat surprising to the researcher. Implicitly, it made sense that those who tend towards verbal aggressiveness, meaning those who are quick to attack the self-concepts or positions of others,

would be the same individuals who have anxiety associated with people evaluating their own ideas or beliefs. It is potentially the case that the kind of person who is willing to verbally attack others is not particularly concerned with others evaluating them given that they clearly do not think highly of the opinions of others.

Hypothesis 5 stated, “Tolerance for Disagreement will have a negative relationship with Evaluation Apprehension” This hypothesis is supported by my correlation analysis based on ($r = -.323, p < .01$). As an individual's tolerance for disagreement increases, their evaluation apprehension decreases. This finding is of no surprise, since individuals who are high in tolerance for disagreement are willing to be challenged on their ideas, and it makes sense that they would experience low levels of anxiety associated with evaluation since they are open to critique for being wrong. This finding also implicates how we practice communication education. If faculty can cultivate tolerance for disagreement via advocacy focused classes then we can also mitigate or minimize the effects of evaluation apprehension associated with preparing and presenting speeches and debates. In many ways, this is the most significant finding due to the ubiquitous nature of anxiety associated with public speaking and potentially offers additional insight for instructors who are hoping to reduce their students' public speaking anxiety since the core of public speaking and debate courses is evaluating the preparation and presentation of speeches and debates.

Hypothesis 6 stated, “Conflict Tendencies as a construct (Verbal Aggressiveness Scale and Tolerance for Disagreement) will act as a predictor of Pro-Social Communication Outcomes as a construct (Self-Perceived Communication Competence, Self-Esteem, Evaluation Apprehension Measurement).” This hypothesis is not supported by my regression analysis based on ($r = -.120$) and ($r \text{ square} = .014$) as well as ($p = > .05$) and ($t = -1.706$). There is no evidence to

support the claim that conflict tendencies function as a predictor in the variance of pro-social communication outcomes. This finding is not surprising, given that both variables in question are constructs, and there was not significant evidence in either direction to support the hypothesis beyond the evidence which supported the relationships between the individual variables that make up each construct. There is some concern regarding the validity of the Pro-Social Communication Outcome construct due to its somewhat low Cronbach's Alpha of .745, though this is above the standard .7 which is deemed acceptable. The implication here is that rather than trying to use verbal aggressiveness and tolerance for disagreement in tandem to predict or alter self-esteem, communication competence, or evaluation apprehension, instructors would likely be better served by focusing on tolerance for disagreement and verbal aggressiveness in isolation as variables which can impact the pro-social communication outcomes for their students.

Beyond the findings that are specific to the hypotheses in this work there are several correlations that are noteworthy. First, among the variables that comprise pro-social communication outcomes, self-esteem had the strongest relationship ($r = .460$). This would indicate that the higher one's self-esteem the higher their pro-social communication outcomes. Recognizing that self-esteem is playing a key role in producing outcomes that are desired in communication classrooms may therefore play an important role in developing skill sets which effectively serve students both in the classroom and beyond. Second, the relationship between self-esteem and communication competence cannot be ignored ($r = .289$) and the same is true of the relationship between self-esteem and evaluation apprehension ($r = -.343$). This further supports the idea that self-esteem is the lynch pin that connects pro-social communication outcomes as increases in self-esteem can both increase communication competence as well as reduce anxiety associated with evaluation. This second aspect is of particular relevance in

advocacy based courses as it provides another tool for mitigating the public speaking anxiety a wide variety of students face. The third relevant finding is the differences in predictive power between tolerance for disagreement and verbal aggressiveness when compared to the construct of conflict tendencies. Both independent variables were found to have predictive power in various capacities for the dependent variables in this study but when the two were combined into a singular construct this predictive power was drastically mitigated. The researcher believes this may be due to the polar nature of the independent variables, specifically, while both variables fall under the roof of “conflict tendencies” they do so in opposing directions, high verbal aggressiveness is a conflict tendency whereas in the case of tolerance for disagreement it is a low score which indicates a conflict tendency. As such, when combining the two scales it is possible that while reliable, they are unable to leverage the predictive power they have in isolation.

One noteworthy finding is the degree to which respondent perceived themselves to be competent communicators. The descriptive statistics for Communication Competence included ($M=4.335$) and ($SD=.711$). This indicates that the average respondent felt they were particularly competent communicators across a variety of communication scenarios. In some ways this is interesting when compared with the descriptive statistics for Evaluation Apprehension ($M=3.424$) and ($SD=.940$). One would think that individuals who view themselves as comfortable communicating in a variety of communication scenarios would similarly feel comfortable in communication scenarios where they are being evaluated. This motivated a deeper look into the data by the researcher with regards to an analysis of the specific items that made up the Self-Perceived Communication Competence Scale. The inventory item that immediately jumps off the page is number 10 which asks how comfortable individuals feel when “talk in a large meeting of strangers” ($M=3.46$). This revelation adds clarity to the disjoint

between the scores for Communication Competence and Evaluation Apprehension. Given that the scenario respondents felt least comfortable in was talking in a large group of strangers and the context for the evaluation of speeches and debates is frequently a scenario approximating a performance in front of a large group of relative strangers it makes sense that the total scores computed for the variables could miss this particular nuance. As a final step, the researcher ran a correlation analysis between the 10th item of Communication Competence and Evaluation Apprehension and a significant negative correlation ($r = -.527$) was revealed, indicating the more comfortable an individual was talking in a large meeting of strangers the less anxiety they associated with being evaluated during a speech or a debate.

In the context of the researcher's purpose for this work the analysis has been a success. Tolerance for Disagreement, Verbal Aggressiveness and the proposed construct of Conflict Tendencies were all demonstrated to have evidentiary support for their relationship with Pro-Social Communication Outcomes. More critically, Tolerance for Disagreement is associated with increases in Self-Esteem, Communication Competence, and reductions in Evaluation Apprehension, all of which have significant implications in the context of advocacy based communication courses, given that these courses can potentially actively facilitate increases in one's Tolerance for Disagreement.

The study reports that there is no significant correlation regarding the demographic questions that the respondents answered and the dependent or independent variables utilized in this work, but this is likely due to the relatively low N and especially the N regarding certain racial categories. Given these limitations, it is best to assume this work can not be generalized to populations beyond the sample frame of communication students as a collective rather than based on demographic characteristics. This is interesting and useful for two reasons, first

because it supports the idea that the communication behavior of individuals is personalized in ways that cannot be captured on the basis of demographic characteristics or at least not with a limited data set such as this. Second, it indicates that these may be readily generalizable across gender boundaries which may be important when researchers or educators are trying to cultivate effective educational environments. Similarly, identifying that Verbal Aggressiveness potentially has a negative relationship with both Communication Competence and Pro-Social Communication Outcomes allows instructors of advocacy based classes to be aware of the effect failing to quell verbal aggressiveness could hurt students communication outcomes writ large. Lastly, the negative relationship between Conflict Tendencies and Evaluation Apprehension indicates that the development of Conflict Tendencies may have some minimal effect with regards to reducing a student's Evaluation Apprehension in Speech and Debate scenarios.

Limitations and Future Research

There are a few limitations associated with this research that are important to note. First, it is again important to state that the global climate during the data collection of this study was significantly affected by the COVID-19 pandemic. The initial plan for this work was to collect responses to 150 physical surveys and 350 digital surveys. COVID-19 caused the mass closure of colleges and universities meant that the researcher was only able to collect 23 physical surveys. While the researcher did manage to receive just over 200 completed digital questionnaires, 57 of the individuals who started the survey did not finish it, and as such, were excluded from this analysis. In addition, one of the more confounding issues that this researcher cannot explain is that of the gender breakdown. The number of respondents who identify as female was significantly higher (63.9%) than that of male respondents (33.7%). This seems to have not posed a problem for the analysis given that significant differences were not found when

controlling for the gender of respondents. In addition to gender, ethnicity poses some concerns for this work, the researcher hoped that they would have a more representative sample but the nature of convenience sampling is such that in this instance the ethnicity of respondents is dominated by Caucasians (60.4%). As mentioned in the discussion, it is therefore important to not assume these results can be generalized to populations beyond students and communication courses and especially not to marginalized groups who are underrepresented in the sample of this work.

Further research in this area could provide a more complete investigation by resolving for the issues associated with the low N of this study and the low response rates for particular demographic groups. In addition, it would be particularly useful for scholars to conduct research on the degree to which Tolerance for Disagreement and/or Verbal Aggressiveness are affected by communication training in the form of communication courses (IE, test students day one of a class and then test them at the end of the semester to identify changes in the pro-social communication outcomes). While communication instructors included the researcher would love to believe that their courses are having an impact on the communication practices of their students having quantitative support for that belief would have significant implications for designing advocacy based communication classes.

The application of this research with regard to future works is also potentially questionable given the obligation of instructors to provide safe environments for their students. Institutional Review Board oversight is especially important when experimenting with means of altering Tolerance for Disagreement. For many individuals, their beliefs are integral to their personal or cultural identity, this researcher would certainly not advocate for challenging these beliefs for the sake of minor gains in Pro-Social Communication Outcomes. If it is possible to

conduct future research in a way that accounts for insuring student's are not subjected to rhetorical violence, micro aggression, or outright discrimination then doing such work could be beneficial, but the benefit to the research subjects needs always be at the forefront of the discussion. If Tolerance for Disagreement and Verbal Aggressiveness can be bolstered or mitigated by instruction, and if increases and decreases in those independent variables do indeed have implications on Pro-Social Communication Outcomes as indicated in this work then designing courses that specifically target changes in Tolerance for Disagreement or Verbal Aggressiveness could be essential in providing students the best education possible, those this is admittedly a large assumption.

Conclusion

This study sought to identify and understand the relationship between conflict tendencies in the form of tolerance for disagreement and verbal aggressiveness, and pro-social communication outcomes in the form of self-esteem, communication competence, and evaluation apprehension. After conducting an analysis of the data collected there is evidence to support correlations between the independent variables and the dependent variables. Increases in Tolerance for Disagreement were found to produce increases in Self-Esteem and Communication Competence as well as decreases in Evaluation Apprehension. Increases in Verbal Aggressiveness were found to result in decreases in Communication Competence and Pro-Social Communication Outcomes as a construct. The construct of Conflict Tendencies which combines Tolerance for Disagreement and Verbal Aggressiveness was found to not serve as an effective predictor of the construct of Pro-Social Communication Outcomes (which was also found to have scale reliability), but increases in Conflict Tendencies were shown to result in decreases in evaluation apprehension.

Given that much of the motivation for this work centered around providing information that communication instructors could use to benefit their students, this project has ultimately exceeded the researcher's expectations. In particular, identifying the relationship regarding the cultivation of Tolerance for Disagreement can have on increasing self-esteem, increasing communication competence, and reducing evaluation apprehension has significant implications for the college classroom. Virtually every public speaking and speech and debate course dedicates time to strategies for mitigating anxiety associated with the delivering of speeches or debates, and now that there is evidence to support the claim that cultivating a student's tolerance for disagreement can help reduce their anxiety instructors can potentially alter their strategies or alter their tactics for helping students overcome this fear. Another implication of this research is that instructors potentially need to be more willing to engage students who are not particularly agreeable, as part of cultivating that trait of their character, which may be exactly what students need in order to succeed as effective communicators.

While Tolerance for Disagreement seems to offer benefits with regards to Pro-Social Communication Outcomes, this study has similarly revealed relationships between Verbal Aggressiveness and communication competence. Given that increases in verbal aggressiveness can result in decreases in communication competence, it is important to tailor instruction and curriculum in such a way that the verbally aggressive communication patterns of students are phased out or otherwise minimized while bolstering student's willingness to be challenged on their beliefs.

In the context of instruction of communication courses, the findings in this study offer a meaningful contribution insofar as they lay the groundwork for further research which could directly affect the way communication courses are taught. If it can be demonstrated that

advocacy based courses can facilitate changes in Tolerance for Disagreement and Verbal Aggressiveness then instructors can use that information to foster Pro-Social Communication Outcomes with regards to increasing Communication Competence and Self-Esteem and decreasing Evaluation Apprehension. As suggested above, it is of critical importance that scholars continue the work laid out in this study and isolate which aspects of communication course curriculum or which educational approaches can foster Tolerance for Disagreement and mitigate Verbal Aggressiveness, because identifying these factors could directly improve the ability of instructors to facilitate Pro-Social Communication Outcomes for their students. This can not only serve them in the context of communication classrooms, but also in their lives beyond academia. Finally, this researcher believes that while educating students who are prepared to continue their studies is of critical importance, and helping produce good citizens is even more important.

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APPENDIX A: SURVEYS

Tolerance for Disagreement (Teven, Richmond, & McCroskey, 1998)

Directions: This questionnaire involves people's feelings and orientations. Hence, there are no right or wrong answers. We just want you to indicate your reaction to each item. All responses are to reflect the degree to which you believe the item applies to you. Please use the following system to indicate the degree to which you agree that the item describes you:

Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
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- ___ 1. It is more fun to be involved in a discussion where there is a lot of disagreement.
- ___ 2. I enjoy talking to people with points of view different than mine.
- ___ 3. I don't like to be in situations where people are in disagreement.
- ___ 4. I prefer being in groups where everyone's beliefs are the same as mine.
- ___ 5. Disagreements are generally helpful.
- ___ 6. I prefer to change the topic of discussion when disagreement occurs.
- ___ 7. I tend to create disagreements in conversations because it serves a useful purpose.
- ___ 8. I enjoy arguing with other people about things on which we disagree.
- ___ 9. I would prefer to work independently rather than to work with other people and have disagreements.
- ___ 10. I would prefer joining a group where no disagreements occur.
- ___ 11. I don't like to disagree with other people.
- ___ 12. Given a choice, I would leave a conversation rather than continue a disagreement.
- ___ 13. I avoid talking with people who I think will disagree with me.
- ___ 14. I enjoy disagreeing with others.
- ___ 15. Disagreement stimulates a conversation and causes me to communicate more.

Verbal Aggressiveness Scale (Infante & Wigley, 1986)

Directions: This section is concerned with how we try to get people to comply with our wishes.

Indicate how often each statement is true for you personally when you try to influence other persons.

Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
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_____1. I am extremely careful to avoid attacking individuals' intelligence when I attack their ideas.

_____2. When individuals are very stubborn, I use insults to soften the stubbornness.

_____3. I try very hard to avoid having other people feel bad about themselves when I try to influence them.

_____4. When people refuse to do a task I know is important, without good reason, I tell them they are unreasonable.

_____5. When others do things I regard as stupid, I try to be extremely gentle with them.

_____6. If individuals I am trying to influence really deserve it, I attack their character.

_____7. When people behave in ways that are in very poor taste, I insult them in order to shock them into proper behavior.

_____8. I try to make people feel good about themselves even when their ideas are stupid.

_____9. When people simply will not budge on a matter of importance I lose my temper and say

rather strong things to them.

____10. When people criticize my shortcomings, I take it in good humor and do not try to get back at them.

____11. When individuals insult me, I get a lot of pleasure out of really telling them off.

____12. When I dislike individuals greatly, I try not to show it in what I say or how I say it.

____13. I like poking fun at people who do things which are very stupid in order to stimulate their intelligence.

____14. When I attack persons' ideas, I try not to damage their self-concepts.

____15. When I try to influence people, I make a great effort not to offend them.

____16. When people do things which are mean or cruel, I attack their character in order to help correct their behavior.

____17. I refuse to participate in arguments when they involve personal attacks.

____18. When nothing seems to work in trying to influence others, I yell and scream in order to get some movement from them.

____19. When I am not able to refute others' positions, I try to make them feel defensive in order to weaken their positions.

____20. When an argument shifts to personal attacks, I try very hard to change the subject.

Self-esteem Scale (Rosenberg, 1965)

Directions: Below is a list of statements dealing with your general feelings about yourself.

Please indicate how strongly you agree or disagree with each statement.

Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
_____ 1. I feel that I am a person of worth, at least on an equal basis with others.				
_____ 2. I feel that I have a number of good qualities.				
_____ 3. All in all, I am inclined to feel that I am a failure.				
_____ 4. I am able to do things as well as most other people.				
_____ 5. I feel I do not have much to be proud of.				
_____ 6. I take a positive attitude toward myself.				
_____ 7. On the whole, I am satisfied with myself.				
_____ 8. I wish I could have more respect for myself.				
_____ 9. I certainly feel useless at times.				
_____ 10. At times I think I am no good at all.				

Self-Perceived Communication Competence (McCroskey, 1988)

Directions: Below are twelve situations in which you might need to communicate. Please indicate how competent you believe you are to communicate in each of the situations described below. Indicate in the space provided at the left of each item your estimate of your competence.

Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
_____ 1. Present a talk to a group of strangers.				
_____ 2. Talk with an acquaintance.				
_____ 3. Talk in a large meeting of friends.				
_____ 4. Talk in a small group of strangers.				
_____ 5. Talk with a friend.				
_____ 6. Talk in a large meeting of acquaintances.				
_____ 7. Talk with a stranger.				
_____ 8. Present a talk to a group of friends.				
_____ 9. Talk in a small group of acquaintances.				
_____ 10. Talk in a large meeting of strangers.				
_____ 11. Talk in a small group of friends.				
_____ 12. Present a talk to a group of acquaintances.				

Evaluation Apprehension Measurement – Modified for Speech and Debate (Richmond, Wrench, and Gorham, 2001)

Directions: This form is composed of statements students have used to describe how they feel in evaluation/examination/test-like situations in their class. After each statement, indicate the number that best describes how you generally feel about presenting a speech or debate or being in an evaluative situation. There are no right or wrong answers.

Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
_____ 1. I feel apprehensive while preparing for a speech.				
_____ 2. I feel tense when I am studying for a speech or debate.				
_____ 3. I am calm when I am studying for a speech.				
_____ 4. I feel peaceful when I am studying for a speech.				
_____ 5. I feel fear and uneasiness when presenting a debate or being evaluated.				
_____ 6. I feel self-assured when presenting a debate.				
_____ 7. I feel fearful when preparing for a speech.				
_____ 8. I feel ruffled when the speech is assigned to me.				
_____ 9. I am jumpy and nervous while giving a speech.				
_____ 10. I feel composed and in control while presenting a debate.				
_____ 11. I am bothered and tense when I am being evaluated.				
_____ 12. I feel satisfied when my debate is completed.				
_____ 13. I feel safe during evaluative situations.				
_____ 14. I feel flustered and confused when I start a speech.				
_____ 15. I am cheerful after I complete my speech.				
_____ 16. I feel happy about how I did in evaluation situations.				
_____ 17. I feel dejected and humiliated an hour before a debate.				

_____ **18.** I feel pleased and comfortable while delivering a speech.

_____ **19.** I feel confident while delivering a speech.

_____ **20.** I feel unhappy throughout the presentation of a debate.

You are almost done! Please answer a few questions about yourself.

1. I am a (check only one): Male____ Female____ I don't identify as either____

2. My year in school (Freshman, Sophomore, Junior, Senior, Graduate):_____

3. What is your age? _____ (Years)

4. I would describe myself as (check only one)?

African American _____

Latinx _____

Caucasian/Non-Hispanic _____

Native American _____

Asian American _____

Other _____

5. What is your major (e.g. biology, psychology, communication)? _____

Thank you for your participation!

APPENDIX B: INFORMED CONSENT

Dear Participant,

The Communications Department at the University of the Pacific would like to thank you for taking part in this survey; we understand your time is very important. With your help, the data being collected will be used in research pertaining to tolerance for disagreement and agreeableness and their potential impact on communication competence, self-esteem, and evaluation apprehension. This survey will take no longer than 18 minutes to complete. You must be at least 18 years or older, a student to participate in this study. Completion of this survey will indicate your consent in participation. Your involvement in this study will be kept as confidential as legally possible. Please do not write any individual identifications (e.g. name, etc.) on the survey document. Please answer all questions as fully and honestly as you can, as failure to do so can alter our results. You may skip any question you do not wish to answer, and you may discontinue at any time. There are no known risks associated with participation in this study. If you have any questions about your rights as a participant, you may contact the University of the Pacific Institutional Review Board (IRB) at (209) 946-3903. University of the Pacific's Institutional Review Board acknowledgment of this project is on file. If you have any further questions about this study, please contact the Primary Investigator Paul Villa at, p_villa1@u.pacific.edu or the faculty project advisor Qingwen Dong at, qdong@pacific.edu. Again, we thank you for your time and contribution to our research.

Sincerely,
 University of the Pacific
 Department of Communications

Participant Signature _____ **Date** _____

Person Obtaining Consent _____ **Date** _____

APPENDIX C: IRB APPROVAL

OFFICE OF RESEARCH AND SPONSORED PROGRAMS | INSTITUTIONAL REVIEW
BOARD

TO: Paul Villa
Communication
College of the Pacific

CC: Dr. Qingwen Dong, Faculty Advisor

FROM: Sandy Ellenbolt

DATE: February 27, 2020

RE: IRB Approval Protocol Villa, #20-90

Your proposal entitled *“Conflict in Communication: Tolerance for Disagreement and Verbal Aggressiveness as Predictors of Communication Competence, Self-Esteem, and Evaluation Apprehension in Undergraduate Communication Courses,”* submitted to the University of the Pacific IRB has been approved. Your project received an Exempt review.

This approval is effective through **February 26, 2021**.

It is your responsibility according to the U.S. Department of Health and Human Services regulations to submit an annual [Active Protocol Status/Continuation Form](#). This form is required to request a continuation or when submitting your required closure report. Please be aware that procedural changes or amendments must be submitted to the IRB for review and approval prior to implementing changes. Changes may NOT be made without Pacific IRB approval except to eliminate apparent immediate hazards. Revisions made without prior IRB approval may result in noncompliance of research. To initiate the review process for procedural changes, complete [Protocol Revision Form](#) and submit to IRB@pacific.edu.

Best wishes for continued success in your research. Feel free to contact our office if you have any questions.

Sandy Ellenbolt

IRB Administrator

University of the Pacific

3601 Pacific Ave

Stockton, CA 95211

(hours: 7:00-3:30)