

An Examination of Reliability and Validity of the Religious Communication Apprehension Scale

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Religious communication apprehension (RCA) is conceptualized as the anxiety or fear associated with either real or anticipated interaction about religion with people of other religions. A RCA scale was constructed and results from this study indicated that the scale is both generally valid and reliable. In this study, 426 participants completed surveys regarding their religious communication behavior. Findings also revealed a positive relationship between religious communication apprehension and religious receiver apprehension. There was a negative relationship among religious communication apprehension, tolerance for religious disagreement, and willingness to communicate about religion.

Keywords: Religious Communication Apprehension; Religious Receiver Apprehension; Tolerance for Religious Disagreement; Willingness to Communicate about Religion

Religion has been studied by various disciplines. For the past 30 years, within the communication studies discipline, religion has been mainly coupled to the Religious Communication Association (Schultze, 2005). Research has suggested links between religious beliefs and affects on communication behavior (Schultze, 2005). The objective of this study was to conceptualize religious communication apprehension

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(RCA) conceptualized as the anxiety or fear associated with either real or anticipated interaction about religion with people of other religions. Another objective of this study was to construct a religious communication apprehension scale.

For several decades, there has been a significant amount of research collected on communication apprehension (CA). CA is "an individual's level of fear or anxiety associated with either real or anticipated communication with another person or persons" (McCroskey, 1984, p. 14). Communication scholars have repeatedly stressed the effects and importance of communication apprehension in public and private communicative contexts (McCroskey, 1977; Richmond, Beatty, & Dyba, 1985). Over a thousand studies have concentrated on the causes, progression, consequences, and treatment of CA, which has made CA the single most researched communication variable in the field (Richmond, Martin & Cox, 1997). A great deal of the research on CA has examined the measurement and implementation of this construct (Neuliep & McCroskey, 1997).

Neuliep and McCroskey (1997) noted that intercultural communication is a context that contains uncertainty, unfamiliarity, and uniqueness. Often times, when individuals are presented with cultural differences, they will most likely experience anxiety and uncertainty (Gudykunst & Kim, 1997). This anxiety felt can be defined as intercultural communication apprehension or "the fear associated with real or anticipated interaction with people from different groups, especially different cultural or ethnic groups" (Neuliep & McCroskey, 1997, p. 147). The researchers noted that in America, intercultural communication is hard to avoid. Researchers in communication have studied several types of communication apprehension and in various contexts.

Religious communication as a context has been widely researched, but communication apprehension has not been examined thus far in this unique context. The present study examined aspects of apprehension in regards to perceptions about communicating and receiving information about religion with people of different religions. The goal of the current study was to develop and determine the reliability and the validity of the Religious Communication Apprehension Scale. The study attempted to provide further insight into the relationship between how people communicate and receive information about religion from people with different religions. There are many variables that may influence RCA, such as religion, communication apprehension, receiver apprehension, and tolerance for disagreement.

Religion

One of the most important influences in a person's life is their religion (Bromley, 1991). Religion can influence people's perceptions on social, personal, and professional matters (Bromley, 1991). Ragsdale (1994) argued that because religion affects values and beliefs, it can also influence the kinds of communication behaviors that are displayed and used in interactions with others. For instance, Stewart and

Roach (1993) discovered that religious beliefs may influence perceptions of argumentativeness. Their findings suggested that religion was a motivation and intention for some people to argue with others. Moreover, this research provided evidence about how religion can influence our communication behaviors.

Other studies have shown that religion can also influence how people perceive and receive communication from others. For instance, Stewart (1994) found a positive significant relationship between a speaker's religious involvement and an audience's perception of that speaker. He utilized a scripted introduction to manipulate the speaker's perceived religious involvement and discovered that an audience viewed a speaker with religious involvement significantly more favorably than if the speaker revealed that they were not involved with their religion. In the same fashion, Ragsdale (1992) found a positive relationship between religious commitment and self-disclosure. Ragsdale suggested that a person's religious orientation may impact their communication behaviors regarding their intent and amount of disclosure. It is apparent that religion not only affects how we communicate but also how we receive information (e.g., Wrench, Corrigan, McCroskey, & Punyanunt-Carter, 2006).

Communication Apprehension

Previous research has shown that people who experience high amounts of anxiety or fear regarding communication will often withdraw from and/or avoid communication situations (Daly & McCroskey, 1984). Several causes of communication apprehension have been suggested. These vary from culture modeling (Daly & Stafford, 1984; Richmond & McCroskey, 1998) to personality characteristics (Butler, 1986; McCroskey, Daly & Sorenson, 1976), and biological temperament (Beatty & McCroskey, 2001).

Research has found that CA affects individuals socially, psychologically, occupationally, and academically (Richmond & McCroskey, 1995). Research has shown that individuals with high levels of CA are perceived as less popular or attractive than individuals with lower levels of CA (McCroskey, 1977). Also, individuals with high levels of CA are less likely to engage in social situations, because it makes them inadequate (Watson, Monroe, & Atterstrom, 1984).

Bourhis and Allen (1992) found a negative relationship between CA and measures of cognitive performance. Allen and Bourhis (1996) noticed that there was a significant negative relationship between CA and various communication skills. Moreover, CA has been linked with higher college dropout rates (Frymier, 1993). Overall, studies on communication apprehension have repeatedly shown how influential it is on several socially-relevant variables.

To assess communication apprehension, McCroskey (1982) created the Personal Report of Communication Apprehension-24 (PRCA-24). The PRCA-24 scale gives a measurement of trait CA and CA across four general situational contexts, such as public speaking, interpersonal, small group, and public speaking. This scale is useful because CA is typically conceptualized on a continuum. At the high end of the continuum is trait CA, which refers to an individual's disposition to experience anxiety in a variety of conditions across time. At the low end of the continuum is state CA, which refers to anxiety that is encountered in specific contexts or situations (Winiecki & Ayres, 1999).

A large amount of research has examined trait approaches as well as situational features of CA (Neuliep & McCroskey, 1997). In a massive meta-analysis, Booth-Butterfield (1998) found a significant relationship between trait and state apprehension. Nevertheless, there are certain situations that may cause apprehension more than others. Buss (1980) reasoned that some of the most prominent causes of apprehension include different, foreign, and/or atypical situations. In other words, an unusual or uncommon interaction with someone else could possibly increase apprehension. Similarly, Berger and Calabrese (1975) maintained that when strangers first communicate with each other, they have some apprehension about the interaction because they do not know each other. Thus, they contended that strangers will try to reduce uncertainty by using various communication behaviors, such as using nonverbal cues and information-seeking strategies. A situation that is often filled with uncertainty, dissimilarity, and novelty could be where an individual has to communicate about religion with someone who has a different religion. In this communicative situation, an individual may also increase apprehension about listening or receiving information about religion from someone who believes in a completely different religion.

Based on the research literature it is important to create a scale for measuring RCA. For a scale to be useful it needs to be both valid and reliable. Therefore, the next section is going to examine a series of previously validated communication variables that will be utilized in the current study to test the concurrent validity of the newly developed RCA scale.

Receiver Apprehension

Receiver apprehension (RA) was originally defined by Wheeless (1975) as "the fear of misinterpreting, inadequately processing, and/or not being able to adjust psychologically to messages sent by others" (p. 263). Wheeless reasoned that a person's inability to effectively decode information and/or listen competently may be due to RA. Wheeless argued that RA is distinctly different from CA in terms of how information is encoded and decoded. He believed that there is a different type of apprehension that occurs when someone communicates information (i.e., communication apprehension) and when someone receives information (i.e., receiver apprehension). Wheeless found that people "experienced significantly lower apprehension as receivers than as sources" (p. 267). He reasoned that these results are not unexpected, because most people tend to be less apprehensive about receiving information than communicating information

Sargent, Weaver, and Kiewitz (1997) also found that individuals with low CA are more inclined to listen or receive complex and stimulating types of information.

In addition, individuals with low CA tend to want to listen to others when their emotions and feelings are important. By and large, there is a positive relationship between CA and RA.

Researchers have discovered that RA is positively associated to attentiveness (e.g., Roberts & Vinson, 1998), attitude formation (e.g., Wolvin & Coakley, 1994) and information processing (e.g., Beatty, 1981). Beatty, Behnke, and Henderson (1980) found a positive relationship between RA and how participants felt while listening to confrontational material. For that reason, one may assume that if religion is a topic that one does not want to listen to, then there may be a relationship to one's receiver apprehension.

One of the most popular measures of receiver apprehension is Wheeless' (1975) Receiver Apprehension Test (RAT). Beatty et al. (1980) determined that the RAT is a valid measurement of receiver apprehension. The researchers also noted that the RAT is internally consistent. Beatty (1985) found that overall RAT scores were typically stable except when there was anticipation regarding a difficult listening task. Since research has previously found a relationship between CA and the RAT, it is expected that there is a positive relationship between religious communication apprehension and receiver apprehension of religious information, so the following hypothesis was posed:

H1: There is a positive relationship between religious communication apprehension and receiver apprehension.

Tolerance for Religious Disagreement

The communicative variable "tolerance for disagreement" initially came from organizational and group communication research literature, because researchers noted a difference between "bad conflict" and "good conflict" (McCroskey, Knutson, & Hurt, 1975; Teven, McCroskey, & Richmond, 1998). In general, conflict is often perceived negatively (Wrench, McCroskey, & Richmond, in press). For that reason, McCroskey and Wheeless (1976) tried to distinguish the different types of conflict and noted that disagreements and conflicts were not the same. Rather, a disagreement is a difference of opinion and may or may not lead to conflict. McCroskey and Wheeless perceived that the type of relationship people shared with each other would determine if disagreements would lead to conflict or not. McCroskey and Wheeless described "tolerance for disagreement" as the amount of tolerance individuals have for handling interpersonal conflict.

Later, Knutson, McCroskey, Knutson, and Hurt (1979) noted that disagreements were usually about substantive and practical matters except when personal topics were incorporated into the interaction. The researchers also argued that everyone would not move in a linear fashion from disagreement to conflict. The researchers believed that individuals might vary from one another based on a trait called "tolerance for disagreement (TFD)". TFD explains why certain people will recognize conflict faster than others.

McCroskey (1992a) reasoned that people will vary in the degree to which they avoid conflict and tolerate disagreement. If a disagreement is perceived as personal, then it results in conflict. McCroskey noted that individuals with high levels of TFD are usually resilient to conflict, but individuals with low levels of TFD tend to be more inclined to conflict. Richmond and McCroskey (1992) later redefined TFD as "the amount of disagreement an individual can tolerate before he or she perceives the existence of conflict in a relationship" (p. 125).

Research on TFD found that employee satisfaction was influenced more significantly by the manager's TFD than the employee's TFD (Richmond & McCroskey, 1979). At the same time, the employee's TFD had no affect on the employee satisfaction. Yet, the employee TFD did influence perceptions of satisfaction with other co-workers. Hence, results from this study indicate that TFD has an influence on perceptions of satisfaction.

Teven et al. (1998) proposed that the tolerance for disagreements may affect whether a person would avoid arguments and conflict. They revised an earlier version of the tolerance for disagreement scale. Their new scale was created to measure the degree to which an individual can tolerate other people disagreeing with what the individual believes to be true. They found that their revised scale was both valid and reliable. Hence, their scale was adapted to measure tolerance for religious disagreements.

Later, Teven (2000) adapted the TFD to look at teachers' tolerance for disagreements. By adapting the scale for the instructional context, he found the scale to be highly reliable and illustrate a high level of discriminant validity. Later, Teven (2004) also found a relationship between students' perceptions of their instructor's TFD and teacher nonverbal immediacy. Overall, Teven's results indicated that TFD can be adapted to understand others perceptions of disagreements and how these perceptions affect other aspects of the relationship. Thus, as suggested by Wrench et al. (2006), a person's TFD toward religion may impact our desire to communicate about religion with other people. Moreover, the researchers suggested that there is a link between tolerance for disagreement and communication apprehension.

H2: There is a negative relationship between religious communication apprehension and tolerance for religious disagreements.

Willingness to Communicate

Typically, individuals have a tendency to either approach or avoid communication (McCroskey & Richmond, 1987, 1990; McCroskey, 1992b). McCroskey and Richmond (1990) defined willingness to communicate (WTC) as a "personality-based, trait-like predisposition which is relatively consistent across a variety of communication contexts and types of receivers" (p. 73). WTC helps to explain why individuals will communicate in certain situations and not other similar situations.

It is evident that people display various communication behaviors in different situations. Sometimes, these communication tendencies are based on the person's personality orientation and their behavioral inclinations. McCroskey and Richmond (1990) developed the Willingness to Communicate Scale in order to offer a way of measuring this construct. The scale has high predictive and construct validity. McCroskey (1992b) further noted that the WTC scale has strong predictive ability and recommended it for future research.

McCroskey and Richmond have argued that the best predictor of WTC is most likely derived from a person's communication apprehension level, because the two constructs are negatively related (McCroskey & McCroskey, 1986; Neuliep & McCroskey, 1997). Chan and McCroskey (1987) found a relationship between students who were rated as high on WTC and the amount of verbal participation they offered in class. The researchers found a connection between reported WTC scores and actual communication behaviors displayed in front of others. In sum, there seems to be a link between WTC and CA.

For that reason, the WTC scale was used in this study to measure an individual's willingness to communicate about religion with other people who may have a different religion. Since previous research has found a negative relationship between CA and WTC (McCroskey & McCroskey, 1986; Neuliep & McCroskey, 1997), the current study expects that the same relationship should exist between religious communication apprehension and an individual's willingness to communicate about religion, so the following hypothesis is posed:

H3: There is a negative relationship between religious communication apprehension and willingness to communicate about religion.

Methods

Participants

Participants for this study were recruited from four different university and college settings in an attempt to attain a fairly diverse population. The sample contained 426 participants 185 (43.4%) of whom were male, 232 (54.5%) of whom were female, and 9 (2.1%) not indicating their biological sex. The mean age for the entire sample was 21.53 (SD = 4.30) with a range from 18 to 56. Furthermore, information was collected on the participants' personal religious affiliations: 209 (49.1%) were Protestant, 145 (34%) were Roman Catholics, 19 (4.5%) were undecided, 12 (2.8%) were agnostic, 10 (2.0%) atheists, 7 (1.6%) were Eastern Orthodox Catholics, 6 (1.4%) were Jewish, 2 (0.5%) were Pagan, and a number of religious bodies (Islam, Mormonism, Satanism, and Spiritualism) were represented by only one participant representing 0.8% of the sample. Twelve (2.8%) participants did not reveal their current religious affiliation.

New Instrumentation

Religious communication apprehension (RCA)

The Religious Communication Apprehension scale (RCA) was created for this study (Table 1) and was derived from a general apprehension scale. The RCA allows researchers to specify a specific context for communication (in this case communicating about religion to people of a different religious affiliation) and then asks participants to respond to 10 bipolar scales with a seven step response. Higher scores are designed to indicate higher degrees of apprehension about the context in question. To ascertain the structure of the scale, a principal component factor analysis was conducted. The scree plot indicated that there was only one clear factor that accounted for 50% of the variance. Scores for the RCA scale can range from 10–70, but a range of 10–63 was seen in this study. The RCA scale had an alpha reliability of 0.88 (M = 31.97, SD = 10.18). Factor loadings for the scale can be found in Table 1.

Concurrent Validity Instrumentation

Religious receiver apprehension

The Receiver Apprehension Test (RAT) is a self-report measure that examines an individual's apprehension towards receiving messages developed by Wheeless (1975). This measure was re-written to measure apprehension towards receiving religious messages from people with differing religious ideas. For example, one of the original items on the RAT read "I feel comfortable when listening to others on the phone", and was transformed to read "I feel comfortable when listening on the phone to a person talk about religion when that person's religion is different from my own". The scale consists of 20 Likert items using a range from (1) *strongly disagree* to (5) *strongly agree*. Higher scores indicated that a receiver perceived her or himself as highly anxious while receiving religious oriented messages. Cronbach alpha for this scale was $0.89 \ (M = 52.73, SD = 11.78)$.

Table 1 Religious Communication Apprehension Scale Factor Analysis.

	Items	Factor 1
1.	Safe/Uneasy	0.77
2.	Peaceful/Fearful	0.77
3.	Flustered/Organized	-0.70
4.	Unconcerned/Disturbed	0.71
5.	Anxious/Calm	-0.70
6.	Uneasy/Sure	-0.78
7.	Self-Assured/Unsure	0.71
8.	Ruffled/Unruffled	-0.61
9.	Nervous/Composed	-0.76
10.	Non-Apprehensive/Apprehensive	0.50

Tolerance for disagreement

The Tolerance for Disagreement scale was created by Tven et al. (1998) to measure the degree to which an individual can tolerate other people disagreeing with what the individual believes to be true. This measure was re-written to measure tolerance for disagreement about religious messages. For example, one of the original items on the RAT read "It is more fun to be involved in a discussion where there is a lot of disagreement", and was transformed to read "It is more fun to be involved in a discussion of religion where there is a lot of disagreement". The scale consists of 20 Likert-type items using a range from (1) strongly disagree to (5) strongly agree. Higher scores indicated that a participant has a higher degree of tolerance for discussions of religious disagreement. Cronbach alpha for this scale was 0.86 (M = 58.82, SD = 10.96).

Willingness to communicate about religion

The Willingness to Communication instrument was devised by McCroskey (1992b) to measure a person's willingness to initiate communication with another person or persons. In the current study, the Willingness to Communicate instrument was adapted to examine an individual's willingness to initiate communication with people about religion. For example, one of the original items on the WTC read "Present a talk to a group of strangers", and was transformed to read "Present a talk to a group of strangers about religion". Each of the 20 items is designed to measure whether an individual would initiate communication in a specific situation or with a specific individual. Eight of the items are fillers and twelve are scored as part of the scale. Using a range from 0 (never) to 100 (always), participants are asked to indicate the percentage of time they would choose to communicate in each type of situation. Ultimately, the scores on the twelve items (divided by 12 to get scored on to a 0-100 scale) were added together to created a composite score with higher scores indicating a higher willingness to communicate. Cronbach alpha for this scale is 0.95 (M = 28.19, SD = 22.82). Previous research supports the validity of the scale (Wrench et al., 2006).

Results

The first research question in this study looked at the results for the Religious Communication Apprehension (RCA) Scale. A principal component factor analysis was conducted. The first step of the analysis was to examine the unrotated factor loadings. The scree plot revealed that there was only one clear factor that accounted for 50% of the variance. When scores for all items on the RCA scale were combined, the mean score was 24.35 (SD = 8.75, N = 399). It was expected that all the items would fall primarily on one factor. First, the unrotated factor loadings were examined. A factor analysis was conducted on the RCA. Factor one accounted for 49.07% of the variance (Eigenvalue = 4.91) and consisted of specifically phrased items. Eight items loaded on one factor. Results revealed that items 8 and 10 should

Table 2 Variable Correlations.

	Religious CA	Religious RA	Religious TFD
Religious Communication Apprehension Religious Receiver Apprehension Religious Tolerance for Disagreement Willingness to Communicate About Religion	0.40 -0.26 -0.20	-0.34 -0.35	0.34

All correlations were significant at p < 0.0005.

be removed. Using only eight items accounted for 55.48% of the variance (Eigenvalue = 4.44). Cronbach alpha for the eight item RCA scale was 0.88. The scales' factor analyses are reported in Table 1. Results suggested that the RCA scale was quite valid.

The first hypothesis looked at the relationship between religious communication apprehension and the religious receiver apprehension. To address the research question, a Pearson's correlation was conducted on the questionnaires that were fully completed. This analysis found a significant positive relationship between religious communication apprehension and the religious receiver apprehension, r(377) = 40, p < 0.0005.

The second hypothesis in this study looked at the relationship between religious communication apprehension and tolerance for disagreement. To perform this analysis, another Pearson's correlation was conducted. This study found a significant negative relationship between these two variables, r(383) = -0.26, p < 0.0005.

The third hypothesis in this study looked at the relationship between religious communication apprehension and willingness to communicate. To perform this analysis, a Pearson correlation was conducted. This study found a negative relationship between religious communication apprehension and willingness to communicate, r(380) = -0.20, p < 0.0005.

While not part of the research questions in this study, a post hoc analysis of the relationships between the study validity variables was also conducted. Pearson correlations for the study variables can be found in Table 2.

Discussion

Religious communication apprehension (RCA) is conceptualized as the anxiety or fear associated with either real or anticipated interaction about religion with people of other religions. Religious receiver apprehension (RRA) is conceptualized as an individual's apprehension towards receiving religious messages from other individuals with different religious ideas. The religious communication scale and the religious receiver apprehension scale were created based on these conceptualizations. Situations that include communicating about religion with people who have different religions are similar to Buss's (1980) statement that the significant situational

features that cause more anxiety are those that are different, foreign, and/or atypical. Thus, the two scales were created in order to further our understanding of how religion can influence perceptions of communication behavior. The development and validation of the RCA scale proved beneficial toward evaluating the research goals of this study.

This study developed and provided an initial validation of the religious communication apprehension scale. The development of the current scale allows for quantitative examination of a specific type of communication (religious communication) that historically has offered a limited amount of empirical research (Baesler, 1994). Results from the study indicated that the RCA scale and RRA scale are both generally valid and reliable. Both scales had high reliability scores. In addition, the scales seem to indicate both content and construct validity. More studies are needed to determine the predictive validity of the scales. Results revealed that both scales were unidimensional. Conceptually, theses scales were created in order to determine how people might feel apprehensive about either talking about and/or listening to religion from a person with a different religion. Future research should maintain this line of research with other communication variables such as communication competence (Spitzberg, 1989) and assertiveness/responsiveness (McCroskey & Richmond, 1996). As with any scale, future research can incorporate these scales in a variety of contexts such as the college classroom and/or workplace. All in all, these scales offer more insight on how people perceive communication about religion from other people with different religions.

The first hypothesis examined the relationship between religious communication apprehension and religious receiver apprehension. Results indicated that religious communication apprehension was positively related to religious receiver apprehension. These findings were similar to Sargent et al. (1997)'s results. Sargent et al. also found a strong relationship between CA and RA. In the current study, college students, who completed the questionnaire, demonstrated consistency in that if they were apprehensive about communicating on the topic of religion, they were also apprehensive about listening to the religion from someone who had a different religion. The results suggest that individuals who do not like to communicate about religion will also not like to receive information on religion. One possible explanation for this could be that a person who is resistant to religious topics might have a limited knowledge of religious topics and would be very apprehensive to talk about religious topics considering that they would have limited capability to communicate on the topic especially with someone who believes in a different religion.

The second hypothesis looked at religious communication apprehension and tolerance for disagreement. The results indicated that there was a negative relationship between religious communication apprehension and tolerance for disagreement. In other words, the more these college students were likely to tolerate disagreements, the less apprehensive they were about talking about religion. Considering the diversity among different religions, discussions about religion may be a topic which produces numerous opportunities for disagreement. This could imply that those college students with a high tolerance for disagreement might have a tendency to discuss religious topics or other controversial subjects, since they would not be deterred by any disagreements which arose from the conversation. Likewise, Eckstein and Turman (2002) have argued that the liberal arts college education should embrace the expression for controversial ideas and beliefs in order to obtain objectivity and intellectualism. Thus, students may feel that conversations about religion are beneficial to their liberal arts education and are less inclined to disagree on these matters.

The third hypothesis examined the relationship between religious communication apprehension and willingness to communicate. Results indicated that there was a negative relationship between religious communication apprehension and willingness to communicate. In other words, the more likely college students were willing to communicate, the less apprehensive they were to communicate religious matter. Similar to McCroskey and Richmond's (1990) findings, willingness to communicate has an impact on the amount of communication that individuals engage in. Thus, individuals with a low willingness to communicate would reflect the amount of communication that these individuals are likely to engage in with another person. In general, the college students in this sample reported a low willingness to communicate on the topic of religion. Based on McCroskey and Richmond's findings, this could imply that these college students may be unwilling to discuss topics other than religion.

Limitations

There are a few limitations that should be mentioned concerning this study. First, the data collected for this study was through a questionnaire. In this initial, exploratory study, it was believed that it would be better to assess perceptions of their communication behavior about religion through this method. Future research should incorporate real observational experiments and/or interviews regarding anxiety that participants experienced when interacting about religion.

A second limitation to the validity of this study relates to the possible influence of social desirability. Because religion is typically considered controversial when communicating with someone of a different religion, participants may have felt the need to respond in a politically correct way. It is quite possible that participants at both the upper and lower religious extremes could have regressed towards the mean, which would skew their perceptions of RCA and RRA.

The last limitation regarding this study is the age of the participants. It is quite possible that the college-aged sample have not truly developed their religious viewpoints and opinions that might mature with age. A different sample, such as a group of elderly churchgoers, could have influenced the results. Future research this area should attempt to acquire a broader range of participants.

Conclusion

Ultimately, this investigation revealed measurement for Religious a Communication Apprehension and Religious Receiver Apprehension. These scales can be used in a variety of contexts for future research. The results from these scales can be applied to a variety of relationships. Specifically, the scales measured the anxiety that participants feel when communicating about and listening to religion from a person who has a different religion. Communicating with others is extremely important for creating and maintaining relationships. Knowing how other people experience communication about religion from a person with a different religion will be beneficial towards creating more satisfying interpersonal relationships.

References

- Allen, M., & Bourhis, J. (1996). The relationship of communication apprehension to communication behavior: A Meta-analysis. Communication Quarterly, 44, 214-226.
- Baesler, E. J. (1994). Religious orientation, persuasion, and communicator style. Journal of Communication and Religion, 17, 61-72.
- Beatty, M. J. (1981). Receiver apprehension as a function of cognitive backlog. Western Journal of Speech Communication, 45, 277-281.
- Beatty, M. J. (1985). Effects of anticipating listening (state) anxiety on the stability of receiver apprehension scores. Central States Speech Journal, 36, 72-76.
- Beatty, M. J., Behnke, R. R., & Henderson, L. S. (1980). An empirical validation of the receiver apprehension test as a measure of trait listening anxiety. Western Journal of Speech Communication, 44, 132-136.
- Beatty, M. J., & McCroskey, J. (2001). The biology of communication: A communibiological perspective. Cresskill, NJ: Hampton Press.
- Berger, C. R., & Calabrese, R. J. (1975). Some explorations in initial interaction and beyond: Toward a developmental theory of interpersonal communication. Human Communication Research, 1, 99-112.
- Booth-Butterfield, S. (1988). A meta-analysis of the cross-situational consistency of communication apprehension. Communication Research Reports, 5, 64-70.
- Bourhis, J., & Allen, M. (1992). Meta-analysis of the relationship between communication apprehension and cognitive performance. Communication Education, 41, 68–76.
- Bromley, D. G. (1991). Introduction: Problems and prospects in the study of religion. In D. G. Bromley (Ed.), Religion and the social order: New developments in theory and research (pp. 1-18). Greenwich, CT: JAI Press.
- Buss, A. H. (1980). Self-consciousness and social anxiety. San Francisco, CA: W. H. Freeman.
- Butler, J. (1986). Personality characteristics in subjects high and low in communication apprehension about communication. Perceptual and Motor Skills, 62, 895-898.
- Chan, B., & McCroskey, J. C. (1987). The WTC scale as a predictor of classroom participation. Communication Research Reports, 4, 47-50.
- Daly, J. A., & McCroskey, J. C. (Eds). (1984). Avoiding communication: Shyness, reticence, and communication apprehension. Beverly Hills, CA: Sage.
- Daly, J. A., & Stafford, L. (1984). Correlates and consequences of social communicative anxiety. In J. Daly & J. C. McCroskey (Eds.), Avoiding communication: Shyness, reticence, and communication apprehension (pp. 125-143). Beverly Hills, CA: Sage.

- Eckstein, N. J., & Turman, P. D. (2002). "Children are to be seen and not heard": Silencing students' religious voices in the university classroom. *Journal of Communication and Religion*, 25, 166–192.
- Frymier, A. B. (1993). The impact of teacher immediacy on students' motivation: Is it the same for all students?. *Communication Quarterly*, 41, 454–464.
- Gudykunst, B., & Kim, Y. Y. (1997). Communicating with strangers: An approach to intercultural communication (3rd ed.). New York: McGraw-Hill.
- Knutson, P. K., McCroskey, J. C., Knutson, T., & Hurt, H. (1979). *Tolerance for disagreement: Interpersonal conflict reconceptualized.* Paper presented at the Annual Convention of the Western Speech Communication, Los Angeles, CA. February.
- McCroskey, J. C. (1977). Quiet children and the classroom teacher. Urbana, IL: ERIC Clearinghouse on Reading and Communication Skills.
- McCroskey, J. C. (1982). Communication competence and performance: A research and pedagogical perspective. *Communication Education*, 31(1), 1–7.
- McCroskey, J. C. (1984). The communication apprehension perspective. In J. Daly & J. C. McCroskey (Eds.), *Avoiding communication: Shyness, reticence and communication apprehension*. Beverly Hills, CA: Sage Publications.
- McCroskey, J. C. (1992a). An introduction to communication in the classroom. Edina, MN: Burgess International.
- McCroskey, J. C. (1992b). Reliability and validity of the willingness to communicate scale. *Communication Quarterly*, 40, 16–25.
- McCroskey, J. C., Daly, J., & Sorenson, G. (1976). Personality correlates of communication apprehension: A research note. *Human Communication Research*, 2, 376–380.
- McCroskey, J. C., Knutson, T. J., & Hurt, H. T. (1975). *New perspectives on conflict management*. Panel presentation at the annual convention of the West Virginia Speech Association, Weston, WV. September.
- McCroskey, J. C., & McCroskey, L. L. (1986). *Correlates of willingness to communicate*. Paper presented at the annual convention of the Western Speech Association, Tucson, AZ. February.
- McCroskey, J. C., & Richmond, V. P. (1987). Willingness to communicate. In J. C. McCroskey & J. A. Daly (Eds.), *Personality and interpersonal communication* (pp. 129–156). Newbury Park, CA: Sage.
- McCroskey, J. C., & Richmond, V. P. (1990). Willingness to communicate: A cognitive view. *Journal of Social Behavior and Personality*, 5, 19–37.
- McCroskey, J. C., & Richmond, V. P. (1996). Fundamentals of human communication: An interpersonal perspective. Prospect Heights, IL: Waveland.
- McCroskey, J. C., & Wheeless, L. (1976). An introduction to human communication. Boston, MA: Allyn & Bacon.
- Neuliep, J. W., & McCroskey, J. C. (1997). The development of intercultural and interethnic communication apprehension scales. *Communication Research Reports*, 14, 145–156.
- Ragsdale, J. D. (1992). Relational communication competence and Christian religious commitment: An exploratory study. *Journal of Communication and Religion*, 15, 147–158.
- Ragsdale, J. D. (1994). Relational communication competence in high and low Christian religious commitment: A research note. *Review of Religious Research*, 35, 268–274.
- Richmond, V. P., Beatty, M. J., & Dyba, P. (1985). Shyness and popularity: Children's views. Western Journal of Speech Communication, 49, 116–125.
- Richmond, V. P., Martin, M. P., & Cox, B. (1997). A bibliography of related practice, theory, and research. In J. A. Daly, J.C. McCroskey, J. Ayres, T. Hopf & D. M. Ayres (Eds.), *Avoiding communication: Shyness, reticence, and communication apprehension* (2nd ed.) (pp. 423–488). Creskill, NJ: Hampton Press.

- Richmond, V. P., & McCroskey, J.C. (1979). Management communication style, tolerance for disagreement, and innovativeness as predictors of employee satisfaction. A comparison of single-factor, two-factor, and multiple factor approaches. In D. Nimmo (Ed.), Communication yearbook 3 (pp. 359-373). New Brunswick, NJ: Transactional Books.
- Richmond, V. P., & McCroskey, J. C. (1992). Organizational communication for survival. Engelwood Cliffs, NJ: Prentice Hall.
- Richmond, V. P., & McCroskey, J. C. (1995). Communication: Apprehension, avoidance, and effectiveness (4th ed.). Scottsdale, AZ: Gorsuch Scarisbrick.
- Roberts, C. V., & Vinson, L. (1998). Relationship among willingness to listen, receiver apprehension, communication apprehension, communication competence, and dogmatism. International Journal of Listening, 12, 40-56.
- Sargent, S. L., Weaver, J. B. III, & Kiewitz, C. (1997). Correlates between communication apprehension and listening style preferences. Communication Research Reports, 14, 74-78.
- Schultze, Q. J. (2005). The "God-Problem" in communication studies. Journal of Communication and Religion, 28, 1-22.
- Spitzberg, B. H. (1989). Handbook of interpersonal communication competence research. New York: Springer-Verlag.
- Stewart, R. A. (1994). Perceptions of a speaker's initial credibility as a function of religious involvement and religious disclosiveness. Communication Research Reports, 11, 169-176.
- Stewart, R. A., & Roach, K. D. (1993). Argumentativeness, religious orientation, and reactions to argument situations involving religious versus nonreligious issues. Communication Quarterly, 41, 26-39.
- Teven, J. J. (2000). The development of a teacher tolerance for disagreement measure. *Iowa Journal* of Communication, 32, 117-130.
- Teven, J. J. (2004). Effective teacher management of disagreement in the college classroom: A review and extension. Iowa Journal of Communication, 36, 125-144.
- Teven, J. J., McCroskey, J. C., & Richmond, V. P. (1998). Measurement of tolerance for disagreement. Communication Research Reports, 15, 209-217.
- Watson, A. K., Monroe, E. E., & Atterstrom, H. (1984). American and Swedish children's apprehension about communication: A comparative study. Perceptual and Motor Skills, 59, 917-918.
- Wheeless, L. (1975). An investigation of receiver apprehension and social context dimensions of communication apprehension. The Speech Teacher, 24, 261–268.
- Winiecki, K. L., & Ayres, J. (1999). Communication apprehension and receiver apprehension in the workplace. Communication Quarterly, 47, 430-440.
- Wolvin, A. D., & Coakley, G. G. (1994). Listening competency. Journal of the International Listening Association, 8, 148–160.
- Wrench, J. S., Corrigan, M. W., McCroskey, J. C., & Punyanunt-Carter, N. M. (2006). Religious fundamentalism and intercultural communication: The relationships among ethnocentrism, intercultural communication apprehension, religious fundamentalism, homonegativity, and tolerance for religious disagreements. Journal of Intercultural Communication Research, 35, 23-44.
- Wrench, J. S., McCroskey, J. C., & Richmond, V. P. (in press). Human communication in everyday life: Explanations and applications. Boston, MA: Allyn & Bacon.

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