

Argumentative Competence in Friend and Stranger Dyadic Exchanges

Ioana A. Cionea, Ph.D.
University of Oklahoma
Department of Communication
130 Burton Hall
610 Elm Avenue
Norman, OK 73019-3141
Office telephone: 405-325-3018
Office fax: 405-325-7625
Email: icionea@ou.edu
ORCID: 0000-0002-4764-4482

Cameron W. Piercy, Ph.D.
University of Kansas
Department of Communication Studies
116L Bailey Hall
1440 Jayhawk Blvd. Room 102
Lawrence, KS 66045
Office telephone: 785-864-3633
Office fax: 785-864-5203
Email: cpiercy@ku.edu

Eryn N. Bostwick, Ph.D.
Cleveland State University
2121 Euclid Ave., MU 221
Cleveland, OH 44115
Email: e.n.bostwick@csuohio.edu

Stacie Wilson Mumpower, Ph.D.
Mid-America Christian University
Adult School of Arts and Sciences
Communication, Media and Ethics
3500 SW 119th St.
Oklahoma City, OK 73107
Email: stacie.mumpower@my.macu.edu

Argumentative Competence in Friend and Stranger Dyadic Exchanges

Abstract

This manuscript investigates the role of argumentative competence in interpersonal dyadic exchanges. Specifically, this study examined the two sub-dimensions of competence, argumentative effectiveness and appropriateness, and their connections with argumentative traits, situational features, and argument satisfaction. In addition, self-perceived versus observed argumentative competence were compared. Participants in the study ($N = 282, 141$ dyads) completed measures before and after a face-to-face argumentative discussion with another person about one of two possible topics (student athlete pay and texting while driving). Results revealed that argumentation traits had little effect on argumentative competence, but competence was predicted by one's knowledge about the topic. Argument satisfaction depended only on arguers' own competence, not their partners'. Finally, a perceptual bias existed regarding argument effectiveness (but not appropriateness) in that participants rated themselves higher than did observers.

Keywords: argumentative competence; argumentation traits; actor-partner interdependence model; argument satisfaction; self-perception bias

Argumentative Competence in Friend and Stranger Dyadic Exchanges

Competence in interactions spans various domains of interest within the communication discipline, from rhetoric and education to organizational and intercultural communication. In essence, competence is a fundamental interpersonal impression (Spitzberg, 1983). Individuals evaluate their interactions with others to form conclusions about the quality of these interactions (Spitzberg & Cupach, 2011). Multiple definitions of competence in interpersonal communication have focused on behavioral components. From this perspective, competence is viewed as a combination of appropriateness and effectiveness (Spitzberg, 1983, 2009; Spitzberg & Cupach, 1984). Appropriateness captures individuals' knowledge and ability to enact the needed behaviors in a particular context; it is rooted in social norms and expectations for a communicative encounter. Effectiveness captures individuals' ability to accomplish their communicative goals via interaction (Spitzberg, 1984; Spitzberg & Cupach, 2009). Thus, in general, communication competence represents behavior that is socially acceptable (appropriateness) and enacted to accomplish a desired outcome (effectiveness).

Across contexts, one of the most critical types of communication competencies is *argumentative competence*. Although correlated with general communication competence, the two are distinct concepts (Trapp, Yingling, & Wanner, 1987). Argumentative competence refers specifically to communicating appropriately and effectively in *argumentative* interactions (i.e., situations in which individuals seek to persuade others of their standpoint; Hample, 2005). In an argumentative context, *effectiveness* refers to the content of arguments, their logical structure, and individuals' skills in advancing good arguments. *Appropriateness* refers to the "personal aspects of arguments, such as the relationship between the arguers" (Trapp et al., 1987, p. 259) or the way an arguer carries himself/herself during an argument (e.g., overbearing, obnoxious).

Infante, Rancer, and Avtgis (2010) later added that an appropriate communication episode occurs when no party involved loses face.

Rapanta, Garcia-Mila, and Gilabert (2013) clarified that argumentative competence involves “the ways in which different types of skills related to argumentation are manifested in a person’s performance” (p. 488). They further claimed that argumentation was among the most “discussed competences in the educational field, due to its proven relationship with critical and higher order thinking” (p. 483). Beyond education, communication and critical thinking skills are essential aspects employers seek in candidates (National Association of Colleges and Employers, 2018). A multitude of other areas in everyday interpersonal exchanges involve argumentation – negotiating a better salary, resolving a conflict with your spouse, persuading an officer not to write you a ticket, or making a decision about how to spend the weekend. Hence, whether individuals are effective and appropriate in argumentative interactions is important for the successful negotiation of their persistent social roles and personal life.

Unfortunately, there is a dearth of research examining argumentative behaviors in actual communication encounters. Instead, most research relies on self-report survey data or experimental inductions (Semic & Canary, 1997). This study adds to the body of literature on face-to-face dyadic argumentation by examining argumentative competence in interpersonal exchanges. Specifically, this study investigates whether competence is connected to individuals’ argumentation traits (i.e., argumentativeness and verbal aggressiveness), whether it is influenced by situational features (e.g., the topic of the argument, knowledge of the topic), and whether it predicts arguers’ satisfaction with the exchange. Additionally, given research on self-perception bias (Jones & Nisbett, 1971; Kenny & West, 2010), the current study also compares individuals’ self-reports and observers’ ratings of argumentative competence, following the discussion of a

controversial topic with another person.

Argumentative Competence in Interpersonal Interactions

Communication competence has been examined extensively in interpersonal and intercultural communication contexts. Less attention has been given to argumentative competence in interpersonal contexts, and even less research has examined the connection between argumentative competence and argumentation traits. [The following sections review argumentative traits and connect them to argumentative competence.](#)

Competence and Argumentation Traits

Argumentativeness and verbal aggressiveness are two of the prominent communication traits that have been examined in connection to arguing behaviors. Both are conceptualized as personality traits that reflect tendencies toward symbolic aggression (Infante, 1987).

Argumentativeness is a constructive trait that captures assertive tendencies, a person's motivation to argue by advocating his or her position and attacking others' positions (Infante & Rancer, 1982). The concept is operationalized as a difference between two sub-dimensions, the tendency to approach arguments ([when individuals are willing or even eager to argue](#)) and the tendency to avoid arguments ([when individuals strongly prefer to refrain from arguing](#); Rancer & Avtgis, 2014). [As a constructive trait, then, argumentativeness ought to relate positively with one's competence, demonstrating knowledge and skills to counter ideas and positions others put forth.](#)

In contrast, *verbal aggressiveness* captures destructive aggression tendencies, a person's inclination to attack individuals' self-concept rather than their ideas (Infante & Wigley, 1986). The concept is also operationalized as a difference between two sub-dimensions, a constructive or pro-social dimension (the positively worded items) and a destructive or anti-social dimension (the negatively worded items; Rancer & Avtgis, 2014). [In interpersonal interactions, these two](#)

sub-dimensions would manifest as hurtful arguing behaviors, attacking a person instead of ideas. As such, verbal aggressiveness has been viewed as a skills deficiency, in that those who lack appropriate arguing skills are more likely to resort to verbal aggressiveness and violence in their conflict management attempts (Infante, Chandler, & Rudd, 1989). Thus, verbal aggressiveness likely relates negatively to perceived argumentative competence, especially the appropriateness sub-dimension.

Although established scales, the measurement of the two constructs has sparked some controversy. For example, a meta-analysis by Hamilton and Mineo (2002) claims the two sub-dimensions of argumentativeness are not orthogonal, as initially conceptualized, but rather correlated negatively. In addition, the meta-analysis highlights the importance of other sub-dimensions, such as skill, curiosity, or competitiveness, beyond the initially proposed sub-dimensions of approach and avoidance. However, Kotowski, Levine, Baker, and Bolt (2009) have proposed that the aggressiveness scale should be treated as unidimensional. In respect to verbal aggressiveness, Beatty, Dobos, Valencic, and Rudd (1998) and Levine, Beatty, Limon, Hamilton, Buck, and Chory-Asasd (2004), among others, have questioned the validity of the scale, especially whether the positively worded items measure verbal aggressiveness. Some researchers have claimed that the pro-social dimension should be dropped altogether when measuring verbal aggressiveness (e.g., Levine et al., 2004), whereas others have argued that the two sub-dimensions should be treated separately (Levine, Kotowski, Beatty, & Van Kelegom, 2012).

Given these controversies, both sub-dimensions of each construct are examined separately in the current study (i.e., argument approach, argument avoidance, constructive verbal aggressiveness, destructive verbal aggressiveness). In addition, we rely on self-reports about

these traits, as Levine et al. (2012) acknowledged the scales tended to perform better when using such an approach, relative to assessments of actual behaviors.

Despite the controversies outlined above, research on argumentativeness and verbal aggressiveness abounds and has flourished since the 1980s when these constructs were advanced (for a summary, see Rancer & Avtgis, 2014). Briefly, these two traits are believed to influence a variety of communication behaviors in multiple contexts. For instance, verbal aggressiveness has been shown to affect how individuals process and edit persuasive messages (e.g., Hample & Dallinger, 1987; Mongeau, 1989) or the likelihood that individuals will engage in aggressive behaviors, such as flaming, cyberbullying, or catfishing in digital environments (e.g., Hmielowski, Hutchens, & Cicchirillo, 2014; Willard, 2007). Further, argumentativeness, as a vehicle for competence, has been found to improve doctor-patient relationships (Avtgis & Madlock, 2008). In organizations, argumentativeness approach has been shown to increase some forms of dissent across cultures (Croucher et al., 2009). Finally, argumentativeness approach and verbal aggressiveness have been positively related in parent-child relationships (Copstead, Lanzetta, & Avtgis, 2001); however, research focused on interpersonal communicative interaction in friendships does not show this relationship (Semic & Canary, 1997). [The link between argumentativeness and competence needs additional attention.](#)

There is also a variety of research that has examined the influence of argumentativeness and verbal aggression on argument processes. For example, studies found one's level of argumentativeness and verbal aggressiveness influenced how an argument partner reacts during conflict (Infante, Heinen Wall, Leap, & Danielson, 1984; Roper, Johnson, & Bostwick, 2017). Additionally, research has found a connection between one's level of argumentativeness and verbal aggression and the type of argument/message strategy they employ (Bishop, Hill, & Lin,

2012; Boster, Levine, & Kazoleas, 1993; Levine & Boster, 1996; Semic & Canary, 1997). For example, Bishop et al. (2012) reported that those high in verbal aggression were more likely to use aggressive humor during conflict, whereas Boster et al. (1993) found that those high in argumentativeness were most likely to use more diverse types of message strategies during an argument. Lastly, Levine and Boster (1996) reported that, during an argument, each person's level of argumentativeness contributed to how the argument progressed, with those dyads in which one person was high in argumentativeness while the other was low in argumentativeness generating the greatest number of arguments and yielding to the other the most. [Because argumentativeness and verbal aggressiveness are communicative manifestations of one's predilection toward and behaviors during an argument, they ought to be related to one's competence in the process of arguing.](#)

In this study, we examine whether these traits (argumentativeness and verbal aggressiveness) predict argumentative competence in dyadic exchanges. According to Rancer and Avtgis (2014), argumentativeness, the constructive trait, ought to be related with competence, whereas verbal aggressiveness, the destructive trait, ought to be related with incompetent or inappropriate communication. Examining dyads *in situ* allows us to investigate actual, rather than recalled, arguments (Semic & Canary, 1997). Onyekwere, Rubin, and Infante (1991) found that individuals who were high in argumentativeness were perceived by their argumentation partners as more competent (i.e., more appropriate and more effective) than those who were low in argumentativeness. The authors explained that, in situations involving arguing, those who are high in argumentativeness might be viewed as more competent because they are motivated to keep the argument going, develop more complex thoughts, and are not aggressive while interacting with the other person.

In terms of argumentative competence, Canary, Brossmann, Brossmann, and Weger (1995) found having undeveloped points was associated with less argumentative competence, whereas displaying the ability to think complexly and adapt to one's partner's messages was associated with higher argumentative competence. These findings suggest cognitive complexity and ability to advocate for one's position without becoming aggressive are associated with argumentativeness. Such traits seem to be positively associated with perceived competence during an argument episode. Furthermore, Dalinger and Hample (1992) reported that higher argumentative competence was associated with arguers who are dominant and contentious, but also those who were friendly, attentive, and relaxed. These findings also seem to reflect the characteristics of an argumentative person, but not a verbally aggressive one. Finally, research examining actor-partner interactions for argumentativeness and argument development suggests that meaningful variance in argument unfolding or development is based on both [self and other](#) argumentativeness (Semic & Canary, 1997). Thus, competence and argumentativeness can reasonably be expected to relate positively.

In addition, Nicotera, Steele, Catalani, and Simpson (2012) proposed an argumentative competence model that combined argumentative and verbally aggressive behavior with appropriateness and effectiveness. Results testing this model indicated that argumentative communication was judged to be the most effective and appropriate, whereas verbally aggressive communication was perceived as less appropriate (although not as less effective). [In terms of competence then, the existing research suggests that argumentativeness would be related positively to perceptions of argumentative competence, whereas verbal aggressiveness would be related negatively to perceptions of appropriateness.](#)

Competence and Situational Factors

In addition to traits, situational factors may contribute to “the way an individual will behave and communicate in that situation” (Rancer & Atvgis, 2014, p. 61). As Rancer and Avtgis detail, these factors can include relationship with the other person, topic of the argument, as well as knowledge about and salience of the topic. Therefore, several situational factors should affect argumentative competence. We have chosen to focus on those related to the issue argued as research on conflict reveals that topic knowledge, topic importance, and personal involvement in the topic all coincide with increased competence (Canary & Spitzberg, 1987; Spizberg & Cupach, 2011). Specifically, we examine the importance of the topic and an individual’s knowledge about the topic of the argument, while controlling for the potential influence of other situational aspects, such as the actual topic of the argument or relationship with the other person.

The topic of an argument has been found to affect arguing behaviors. For instance, A. Johnson et al. (2007) reported that individuals were less argumentative when discussing personal versus public topics, with no differences emerging in respect to verbal aggressiveness across topic type. Furthermore, Canary et al. (1995) found that argument partners were perceived as more competent when the argument topic was rated as highly important compared to trivial. Although knowledge about a topic has not been examined in previous studies, it could also influence perceptions of competence. [From Cicero and Aristotle to modern day research in persuasion or rhetoric, ample evidence suggests that expertise relates to perceived source credibility \(e.g., Benoit, 1987\). Knowledge of a topic can increase a person’s credibility when arguing about that topic, which could also increase that person’s perceived competence. Generally speaking, knowing what to talk about at the appropriate time suggests greater communicative competence \(Duran & Spitzberg, 1995\).](#) Topic knowledge likely translates into

increased effectiveness when arguing about this topic. Furthermore, topic knowledge also likely enables a person to generate more ideas, arguments, and evidence in support of one's position on that topic. For example, Hample (2002) explained that “[t]o argue well, one must have good content” (n.p.), which suggests that having more readily available arguments (which topic knowledge could facilitate) can increase one's ability to argue well (or effectively) as well. Thus, knowing what to argue on a specific topic can increase one's argumentative competence.

A related factor that may affect argumentative competence is one's ego-involvement, or the importance of the topic to a person. Topic importance usually motivates a person to learn more about an issue, potentially via research, which could translate into greater effectiveness as the individual is able to articulate his or her position and present information to support his or her position. Indeed, Onyekwere et al. (1991) found that ego-involvement in the topic of the argument affected perceptions about the effectiveness of a high-argumentative person: when their ego-involvement was low, highly argumentative individuals were perceived as less effective than when their ego-involvement was high. Thus, as topic importance increases, it is likely that the person's argumentative competence increases, too.

In light of the considerations presented above, we take the interactionist perspective on argumentative and aggressive behaviors. This position suggests that, “knowledge of both trait and situational factors is crucial in predicting a person's communication behavior in any given situation” (Rancer & Avtgis, 2014, p. 70). When previous research offers us sufficient support, we advance hypotheses that connect traits and situational features to argumentative competence. When such support does not exist or is insufficient, we ask research questions instead. The following are proposed:

H1: Self-perceived argumentative effectiveness will be positively predicted by a) a

person's self-reported argumentativeness, b) their partner's self-reported argumentativeness, c) a person's self-reported topic importance, and d) a person's self-reported topic knowledge, and will be negatively predicted by e) a person's self-reported verbal aggressiveness, and f) their partner's self-reported verbal aggressiveness.

RQ1: How, if at all, is self-perceived argumentative effectiveness related to a partner's self-reported a) topic importance and b) topic knowledge?

H2: Self-perceived argument appropriateness will be positively predicted by a) a person's self-reported argumentativeness, b) their partner's self-reported argumentativeness, and will be negatively predicted by c) a person's self-reported verbal aggressiveness, and d) their partner's self-reported verbal aggressiveness.

RQ2: How, if at all, is self-perceived argument appropriateness related to a) a person's self-reported topic importance, b) their partner's self-reported topic importance, c) a person's self-reported topic knowledge, and d) their partner's self-reported topic knowledge?

Argumentative Competence and Argument Satisfaction

Research has consistently shown that effective and appropriate behavior is related to communication satisfaction during conflict (Cupach, 1982; Zakahi & Duran, 1984).

Communication competence has been related to social attraction during conflict interactions (Canary & Spitzberg, 1987), and satisfaction with an argument has been found to increase when one's argumentation partner displayed effective and appropriate communication (Martin & Anderson, 1995; Onykwere et al., 1991). Furthermore, Canary et al. (1995) found that individuals whose argument partners engaged in complex arguments (marked by the use of relevant support for their points) were more satisfied with their exchange. Thus, evidence

suggests argumentative competence is related to how satisfied individuals are with an argument.

An argument is a mutual process; its evolution depends on both arguers' actions. One's own perception of competence is likely associated with satisfaction with the argument, but so could the other person's argumentative competence. Infante, Trebing, Shepherd, and Seeds (1984), for instance, found that individuals who were low or moderate in argumentativeness responded differently to their argument partner, depending on whether the other person was adaptable or obstinate. If their partner was obstinate, participants were more likely to use verbal aggressiveness than if their partner was adaptable. Similarly, if one's argumentation partner is not effective in conveying his or her arguments or uses inappropriate strategies, such as personal attacks or aggressive moves, one may not be satisfied with the exchange. Canary et al. (1995) reported that the use of undeveloped points was associated with less satisfaction in friendship arguments. Therefore, it is hypothesized that both self and partner competence will be related to satisfaction, as follows:

H3: Self-reported satisfaction with the argument will be positively predicted by a) a person's self-reported argumentative competence and b) their partner's self-reported argumentative competence.

Self-Perception Bias in Argumentative Competence

A final area of interest for this study, given the main variables examined, is a comparison of self-reported and observed argumentative competence. Jones and Nisbett (1971) have argued that an actor and an observer assign meaning quite differently. Subsequent research has consistently demonstrated a bias in self-other perception (Kenny & West, 2010). Pronin, Gilovich, and Ross (2004) justify this self-other discrepancy as a fundamental cognitive bias called the bias blind spot. Ehrlinger, Gilovich, and Ross (2005) label it the better-than-average

effect. Regardless of the terminology used, evidence suggests that people perceive themselves as different (in many ways better or less affected by various influences) than the average person. Furthermore, McCroskey and McCroskey (1988) contended that self-report measures of competence were accurate only in that they predicted how “communicatively competent a person *thinks* he/she is” (p. 110, emphasis in original). Humans are not particularly good at objectively assessing their own communicative effectiveness. In fact, Canary and Spitzberg (1990) have found that actors judged themselves “as more globally competent, generally appropriate, and specifically appropriate than partners judged them” (p. 146).

In sum, there is a positive bias to rate oneself as more effective at a number of behaviors (including arguing) than others rate the self (McCroskey & McCroskey, 1988; Pronin et al., 2004). In respect to argumentation, these research findings indicate individuals are likely to perceive themselves as more competent (i.e., more effective and more appropriate) during arguments than others would perceive them. Kruger and Dunning (1999), for instance, have found that those with the least skill in logic exhibited the greatest positive bias in reporting their own abilities. As restated by the authors, incompetence “not only causes poor performance, but also the inability to recognize that one’s performance is poor” (Kruger & Dunning, 1999, p. 1130). In other words, people who are incompetent do not know they are incompetent. In line with this perceptual bias, the following hypothesis is advanced:

H4: Self-perceived argumentative effectiveness and appropriateness will be higher than observers’ rating of their argumentative effectiveness and appropriateness.

Method

Participants

Participants in this study were 282 individuals (141 dyads) between the ages of 18 and 55

($M = 20.18$, $SD = 2.96$), mainly enrolled in Communication courses at a large South Central university in the United States. There were 141 women, 140 men, and one participant who indicated “other.” Most participants self-identified as White ($n = 204$), with some self-identifying as Asian ($n = 20$), Hispanic or Latino/Latina ($n = 16$), Black or African-American ($n = 13$), or other ethnicities ($n = 29$). Participants were freshmen ($n = 114$), sophomores ($n = 69$), juniors ($n = 57$), seniors ($n = 38$), and a few others ($n = 4$). Communication majors comprised 22% of the sample, with a variety of other majors, such as Advertising, Business, Computer Science, Energy Management, History, Nursing, or Sports Management. Less than 20% had some argumentation experience: 24 participants reported formal training, such as debate during high-school or mock trial, and 30 participants reported some training, such as a class related to argumentation or less than a semester of debate.

Procedures

Participants were recruited primarily from a departmental research pool and came to the laboratory for an argument experiment. About half ($n = 142$) of the respondents were paired with a stranger (forming 71 dyads), whereas the other half ($n = 140$, forming 70 dyads) argued with a friend (generally another student) whom they brought with them to the lab. After consenting to participate in the study, participants completed initial questionnaires assessing their argumentation traits.

Participants were then randomly assigned to argue with the other person in the dyad about one of two possible argument topics (i.e., “Texting while driving should be harshly penalized” or “Student athletes should be paid”). Each participant was then randomly assigned to be in favor or against that topic, regardless of their personal stance on the issue. Next, participants indicated how important the topic was for them, how much they knew about the

topic, and their personal stance on the topic. They were given some time to prepare, and then discussed the issue with their argumentation partner (stranger or friend) in an audio- and video-taped interaction. After the argument, participants were asked to rate their satisfaction with the argument and self-report their own competence in the argument. They were then debriefed and thanked for their participation. Those in the research pool received extra credit for their participation, whereas the friends brought to the lab received either extra credit or a small gift consisting of office supplies and candy, worth roughly \$5. The research was approved by the Institutional Review Board at the first author's university.

Measures

All items for the variables listed below were measured using a Likert-type scale, ranging from 1 = *strongly disagree* to 7 = *strongly agree*. [Grand mean, grand standard deviation, and pooled reliability scores for each variable are provided in Table 1.](#) All scales were sufficiently reliable. Zero-order correlations are included in Table 2.

[Insert Table 1 and Table 2 about here]

Argumentation traits. *Argumentativeness* was measured using Infante and Rancer's (1982) scale. The two sub-dimensions, argument approach (e.g., "I have a pleasant, good feeling when I win a point in an argument") and argument avoidance (e.g., "Once I finish an argument, I promise myself that I will not get into another") were measured with ten items each. *Verbal aggressiveness* was measured with Infante and Wigley's (1986) scale. Constructive verbal aggressiveness (e.g., "When I try to influence people, I make a great effort not to offend them") and destructive verbal aggressiveness (e.g., "When individuals insult me, I get a lot of pleasure out of really telling them off") were also measured with ten items each.

Topic importance. The importance of the topic argued for participants was measured

with five items developed for this study by adapting and supplementing A. Johnson et al.'s (2010) value-relevance scale. Items included, "I feel strongly about this topic," "The topic about which we will argue is related to my values," or "This topic about which we will argue matters a lot to me."

Topic knowledge. Participants' knowledge about the topic they argued was measured with three items developed by the first author for this study. The items were: "I know a lot about this topic," "I have relevant arguments for this topic," and "I have credible evidence for this topic."

Argumentative competence. Argumentative competence was assessed in two ways: 1) based on participants' self-reported post-interaction rating and 2) based on outside observers' ratings. Trapp et al.'s (1987) scale was used for self-reports that participants completed. The first sub-dimension, *effectiveness*, was measured with nine items (e.g., "I provided enough support for my arguments" or "I used effective persuasive tactics"). The second sub-dimension, *appropriateness*, was measured with ten items, all reverse-coded so that higher numbers would reflect more appropriateness (e.g., "I frequently interrupted the other person" or "I was arrogant and overbearing").

For observer ratings, four undergraduate research assistants rated participants' competence. Specifically, the research assistants first practiced rating video-recordings of dyadic arguments (from other dyads in the study, not included in this report) until they reached acceptable inter-rater reliability. Then, they watched each participant's video recording twice, and rated each participant's effectiveness and appropriateness. The research assistants used the same 1-7 Likert-type scale that participants used to rate their argumentative competence, reworded slightly (e.g., "The person you are rating used effective persuasive tactics" or "The

person you are rating was obnoxious”). Observers’ inter-rater reliability was calculated with Cronbach’s alpha, a method used previously in research involving other dyadic interactions (i.e., marital interactions; Christensen & Heavey, 1990). The average inter-coder reliability among the four raters was .77 for effectiveness and .73 for appropriateness, which are both acceptably high values. The scores from the four research assistants for each competence item were then averaged to calculate the final observer ratings for appropriateness and effectiveness. This use of multiple outside raters helped avoid issues of common method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

Argument satisfaction. Items from K. Johnson and Roloff’s (1998) relational satisfaction scale were adapted to measure participants’ satisfaction with the argument they had just completed. Participants rated their agreement with statements such as, “I am satisfied with how this argument went” and “I respect the other person more as a result of this exchange.”

Results

Analysis. Given the dyadic nature of this data, an actor-partner independence model (APIM) was employed to test for shared and individual variation (Kenny, Kashy, & Cook, 2006). An APIM allows researchers to simultaneously account for variance explained by actor and by partner and the interaction between actor ratings and partner ratings. Restated, APIM conceptually accounts for and tests interdependence (Cook & Kenny, 2005). The dyads in this study were indistinguishable, meaning who was designated as the first or second person in the dyad did not follow any meaningful pattern (Gonzalez & Griffin, 2000). The data were organized into a pairwise dataset with scores from each of the two members of the dyad on the same variable, in the same row (Kenny et al., 2006), consistent with the multi-level modeling approach favored for indistinguishable dyads (McEwan, 2013).

To ensure sample size and model proposed were sufficient to detect the relationships examined, we conducted a power analysis for indistinguishable APIM using Ackerman, Ledermann, and Kenny's (2018) power analysis application. We assumed an actor-partner correlation of .25, and error variance of .20, a small-medium actor effect size .25, and a small partner effect size of .15. With these specifications in mind, our sample was sufficiently powered to detect both actor (.97) and partner effects (.83; Cohen, 1992).

Given that participants were sampled from the same distribution, initial intraclass correlations ($r_{xx'}$) were calculated using the formula outlined by Gonzalez and Griffin (2000) to examine shared variation. Two of the three criterion variables had significant intraclass correlations: argument appropriateness ($r_{xx'} = 0.29, z = 3.41, p = .000$) and argument satisfaction ($r_{xx'} = 0.18, z = 2.14, p = .03$), whereas argument effectiveness did not ($r_{xx'} = -0.08, z = .95, p = .342$). Table 3 shows intraclass correlation values for all pairwise study variables.

[Insert Table 3 about here]

Multi-level modeling using the actor-partner interdependence model (APIM; Kenny et al., 2006) and Kenny's APIM_MM online program generating R syntax (Kenny, n.d.) were employed to test the first three hypotheses and answer the study's research questions. First, each variable was grand-mean centered. For H1 and H2 as well as RQ1 and RQ2, effectiveness was entered as the dependent variable in the first analysis and appropriateness was entered as the dependent variable in the second analysis, respectively. The independent variables were as follows: each person's self-reported argument approach, argument avoidance, constructive verbal aggressiveness, destructive verbal aggressiveness, topic importance, and topic knowledge, and the same six variable self-reported by their argumentation partner. Dyad sex (men or women), the topic argued (texting while driving penalties or student athlete pay), and the

relationship with the other person (stranger or friend) were included as covariates.

H1 proposed that self-reported argumentative effectiveness was predicted by both a person's own traits and their argumentation partner's traits, as well as the importance of the topic for a person and their topic knowledge. H1d was the only prediction that received support in that the actor effect for topic knowledge was statistically significant in the predicted direction, $\beta = 0.19, p < .001$. In response to RQ1, the importance that one's argumentation partner placed on the topic or their topic knowledge did not relate to a person's self-reported argumentative effectiveness.

H2 proposed that self-reported argumentative appropriateness was predicted by a person's own traits and their argumentation partner's traits. H2d was the only prediction supported in that the actor effect for a person's self-reported **destructive** sub-dimension of verbal aggressiveness negatively predicted how appropriate that person reported they were during the argument, $\beta = -0.15, p < .05$. **The constructive sub-dimension predicted appropriateness positively (H2c), $\beta = 0.14$, but the result was only marginally significant, $p = .055$.** In response to RQ2, the actor effect for topic knowledge was significant (RQ2c). A person's level of appropriateness was positively predicted by the knowledge that person had about the topic, $\beta = 0.10, p < .05$.

Notably, for appropriateness, the topic covariate was significant, $\beta = 0.30, p < .05$. Participants reported higher perceived appropriateness when discussing whether student athletes should be paid than when discussing whether texting while driving should be harshly penalized.

H3 proposed that satisfaction with the argument would be predicted by both one's self-reported argumentative competence (H3a) and the other person's self-reported argumentative competence (H3b). To test this hypothesis, an APIM with satisfaction as the dependent variable

and one's self-reported argumentative effectiveness and appropriateness was constructed, as well as one's partner's self-reported argumentative effectiveness and appropriateness as predictors. Similar to the first analysis, dyad sex, topic argued, and argumentation partner were entered as covariates. H3a was supported; both actor effects were significant, with one's self-perceived effectiveness, $\beta = 0.50, p < .001$ and self-perceived appropriateness $\beta = 0.23, p < .001$ positively and significantly predicting argument satisfaction. H3b was partially supported: one's partner's appropriateness positively and significantly predicted one's satisfaction with the argument, $\beta = 0.12, p < .05$. Of the covariates, sex significantly predicted satisfaction, $\beta = 0.21, p < .05$, indicating that women were more satisfied with their argument exchanges than men.

Finally, H4 posited that participants would rate their argumentative competence (both effectiveness and appropriateness) higher than observers would. To test this hypothesis, 50 dyads were randomly selected from the sample for coding. Paired samples *t*-tests were conducted to test this hypothesis. The confidence interval was increased from 95% to 98.75% to account for testing a directional hypothesis, and conducting two analyses at once, to avoid a Type I error. Results provided support for the prediction regarding argument effectiveness in that participants' self-reported effectiveness ($M = 5.29, SD = 0.80$) was significantly higher than observers' ratings of participants' effectiveness ($M = 3.98, SD = 0.73$), $t(99) = 13.22, p = .000$, Cohen's $d = 1.71$. Thus, H4a was supported. In respect to argument appropriateness, however, the results, although significant, were opposite than predicted in that participants' self-reports of appropriateness ($M = 5.09, SD = 0.74$) were lower than observers' ratings of appropriateness ($M = 5.88, SD = 0.24$), $t(99) = -10.60, Cohen's d = 1.44$. Thus, contrary to H4b, participants rated themselves as less appropriate than did observers. All results are discussed below.

Discussion

This study examined argumentative competence in interpersonal dyadic exchanges. Past research has reported on conflict management styles (Gross & Guerrero, 2000), argument tactics (Canary & Spitzberg, 1990), and aggressiveness (Nicotera et al., 2012); in contrast, this study examined situational, argumentative traits, and self-other and outsider perceptions to predict argument-specific competence. We employed argumentative competence (as opposed to general competence) to investigate person and context-driven outcomes, along the lines of the interactionist perspective on argumentative communication. We also examined the relationship between argumentative competence and satisfaction with the argument. Below, we outline the influence of trait and situational factors in argument processes and outcomes.

The first contribution of this study is an exploration of the relationship between aggressive traits and argumentative competence in actual dyadic exchanges. Despite prior evidence linking self-other ratings of competence and argumentativeness (Onyekwere et al., 1991), the results of our study indicated that neither one's own argumentativeness nor their partner's argumentativeness or verbal aggressiveness predicted a person's perceptions of competence. *Only a person's self-reported destructive verbal aggressiveness negatively predicted that person's perceived appropriateness in an argument. A person's constructive verbal aggressiveness was a marginally significant predictor of appropriateness. Thus, higher aggression was associated with less appropriateness during an argument, which suggests that aggression is viewed as a negative approach to an argumentative interaction.*

The limited relationship between competence and traits suggests several possibilities. Perceived competence after an argument (i.e., retrospective measure) may not be best predicted by traits assessed prior to an argument. As one of our reviewers has suggested, traits may evaporate once an argument begins as individuals will respond to the other person and his or her

actions. Thus, competence may be interactional rather than static, changing depending on the evolution of an exchange. However, based on our study, it is not the other person's argumentative or verbal aggressive traits that changes one's own perceived competence; no partner effects were significant in predicting argumentative competence in our study. These results suggest that other aspects (besides predispositions toward assertive communication) may need to be identified to understand how perceptions of competence (especially the effectiveness sub-dimension) form and evolve during an argument. A person's instrumental goals, their training in argumentation, or their ability to argue well may be better predictors of effectiveness and appropriateness during an argument rather than one's argumentation traits. High argumentativeness, may motivate an individual to develop better arguing skills or learn how to construct logical arguments, which then predict argumentative competence in an interpersonal exchange, whereas the effect of traits on competence is minimized. Future research ought to examine such possibilities.

Another explanation is that individuals consider more situational aspects about their performance, rather than their traits, when evaluating their competence. Results from the first hypothesis and second research question support this idea. Consistent with previous research on communication competence (Canary & Spitzberg, 1987; Spitzberg & Cupach, 2011), the topic discussed and knowledge about that topic were related to argumentative competence. Specifically, participants reported higher competence (both effectiveness and appropriateness) when they had more knowledge about the topic of the argument. This result suggests individuals understand they can make better arguments or provide more support for their position when they know the issue discussed. Along these lines, Cionea, Richards, and Straub (2017) reported that individuals' intent to engage in an argument was positively predicted by their level of

preparedness for the argument, which they operationalized as knowledge about the topic, credible evidence or relevant arguments for one's position, which is similar to the topic knowledge variable in this study. Thus, topic knowledge appears to be an important situational factor that future research ought to examine when investigating arguing behaviors.

Interestingly, this result also suggests that individuals perceived they were more appropriate (i.e., less obnoxious, less overbearing, less likely to interrupt the other or prevent the other from expressing his or her ideas) when they had more knowledge about a topic. Perhaps inappropriate strategies are a diversion used when individuals do not have sufficient information to argue content, [similar to the arguing skill deficit model for verbal aggressiveness \(Infante et al., 1989\)](#). In this case, appropriateness in argumentation (and, by extension, argumentative competence) may be a function of content knowledge more so than norms or expectations for behavior in an argument. As for the significant effect of the topic covariate, the sample composition (students, including some student athletes) may explain why participants perceived they were more appropriate when discussing whether students athletes should be paid (which involved discussing their peers, friends, or even the argument partner, who may have been a student athlete) than whether texting while driving should be harshly penalized.

In line with our predictions, participants overestimated their argumentative effectiveness. [Given the low correlations between observer and actor ratings, however, these findings should be interpreted with caution. Still, we retained this test because we attained reasonable internal consistency in observer ratings, and found the hypothesized discrepant results in self-other evaluations.](#) These findings are consistent with research on the self-perception bias (Ehrlinger et al., 2005; Kenny & West, 2010; Pronin et al., 2004). They may be explained by Kruger and Dunning's (1999) proposition regarding the miscalibration of skills: those who lack the

necessary metacognitive skills grossly overestimate their performance. Applied to our study, perhaps participants overestimate their argument effectiveness due to their lack of formal arguing skills that would have taught them persuasive strategies and appropriate argument building techniques. Participants may not know what effective arguing looks like – the non-significant relationship in our study between effectiveness and argumentativeness (despite past evidence of this relationship; i.e., Nicotera et al., 2012) supports this claim. Perhaps mastery modeling, practice, or other forms of social training (Bandura, 1989) can serve to match self- and other-perceived argumentative competence—an area worth developing in future research.

Contrary to predictions, participants' self-reports of appropriateness were lower than those of observers, suggesting participants were more critical of their appropriateness than were observers. This finding is compounded by results for the second hypothesis, which found that an arguer's self-reported constructive verbal aggressiveness was negatively related to argument appropriateness. As Trapp et al. (1987) have suggested, individuals may recall more negative information when forming an overall impression of their competence. Some inappropriate tactics, such as being obnoxious or poking fun at the other person, may be given greater subjective weight by participants in their assessment of their overall appropriateness. It is also possible that participants were mostly concerned with their own effectiveness and not necessarily with their appropriateness as the study asked that they prepare arguments about the topic, which may have been interpreted as a suggestion to be effective while arguing. Thus, overall, this study suggests perception biases, as they apply to ratings of argument effectiveness, but also poses new questions regarding perceptions of appropriateness in interpersonal exchanges.

Finally, perceptions of argumentative competence predicted individuals' satisfaction with the argument. Interestingly, a person's own perceived competence (both effectiveness and

appropriateness) predicted satisfaction positively, as did their partner's appropriateness, but the partner's effectiveness had no relationship with a person's satisfaction. In other words, if a person feels competent and evaluates their argument partner as appropriate, that person is generally more satisfied with an argumentative exchange. It is possible, consistent with a self-driven bias, that participants may have been mainly concerned with their own performance so that they could complete the experiment satisfactorily; therefore, they did not care much about what the other person did, as long as the other was not too rude, aggressive, or obnoxious.

Limitations and Directions of Future Research

This study has several limitations that ought to be acknowledged. First, although conducting the study as a laboratory experiment provided control and increased the internal validity of the research, it was not as realistic as an argument people may have in their everyday interpersonal relationships. We contend that it does provide a good approximation of some forms of discussions, such as classroom exercises, academic debates, and peer exchanges that may occur in some situations (although not all). Second, past research has situated argument styles and techniques (Canary & Spitzberg, 1990; Gross & Guerrero, 2000) to examine specific behaviors. Our study instead focused on situational and trait-based cues, and uses an argument-specific measure of argument-based competence to situate the research. The obvious next step will be to integrate conflict-management styles and argument, as well as situational traits.

A different type of limitation is that we were unable to establish *a priori* justifications to test cross intra-class correlations.. Gonzalez and Griffin (2000) have suggested that cross intra-class correlations, or relationships among and between actor-partner variables, can add additional explanatory power to APIMs. Future research may use this study as a basis for additional theorizing among self and other competence evaluations. In addition, although this study

attempted to avoid common method bias by including self, partner, and observer ratings of argument competence, it is not possible to completely eliminate that bias (Podsakoff et al., 2003). Interestingly, actors and partners did not affect each other's ratings. However, those engaging in the argument had significantly higher ratings of effectiveness and lower ratings of appropriateness than observers. Future research ought to engage in additional mitigation of common method biases (Semic & Canary, 1997) by including additional outsider ratings, perhaps by a friend or colleague. In future research, actor-partner evaluations of each other's competence could significantly improve our understanding of the argumentative processes.

Another direction for future research stems from the need to gain more knowledge about the appropriateness dimension of argumentative competence. Only a person's self-reported constructive verbal aggressiveness related to the appropriateness dimensions of competence. We speculate that politeness norms (see Brown & Levinson, 1987) may be influencing perceptions of one's appropriateness in an argument. Further, we found it surprising that partner effects (friend versus stranger) did not emerge for either effectiveness or appropriateness. Given the dynamic of positive and negative politeness frameworks, investigating politeness and competence should be a fruitful avenue for future research.

Finally, the result that argumentative competence predicted argument satisfaction reinforces interpersonal findings that communication competence affects satisfaction with an interaction (Cupach, 1982; Zakahi & Duran, 1984), with evidence from dyadic arguments. The important contribution this study makes is examining satisfaction as a function of both one's own competence and the other person's competence. The findings suggest satisfaction could be a primarily self-centered outcome – participants examine their own performance (and only partner's situated argument appropriateness) as the basis for making inferences about the event.

Future research ought to examine whether this conclusion is supported in other argumentative exchanges. For instance, if the other person's behavior is highly inappropriate or violates conversation norms (e.g., the other person launches personal attacks or insults the participant), participants may take that behavior into account when evaluating their satisfaction with the argument. It is also possible that participants in our study may have fallen victim to a confirmation bias during their arguments in that their partner's feedback was ignored in light of cues confirming what the participant already believed (Nickerson, 1998).

Competence may be in the eye of the beholder; however, as this study indicates, there are concrete situational elements, topic and topic knowledge, that affect perceptions of competence, and there are also consequences of competence for evaluations of interpersonal arguments. Given argumentative competence's potential to aid individuals in their everyday lives, from honing in their critical thinking skills to improving their persuasive communication attempts, future research should and could provide helpful practical applications for this concept that deserve further investigation.

Note: All procedures involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study.

References

- Ackerman, R. A., Ledermann, T., & Kenny, D. A. (2018). *APIM power* [Online program]. Retrieved from <https://robert-ackerman.shinyapps.io/APIMPowerR/>
- Avtgis, T. A., & Madlock, P. E. (2008). Implications of the verbally aggressive patient: Creating a constructive environment in destructive situations. In E. P. Polack, V. P. Richmond, & J. C. McCroskey (Eds.), *Applied communication for health professionals* (pp. 167-184). Dubuque, IA: Kendall Hunt.
- Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, *44*, 1175-1184. doi:10.1037/0003-066X.44.9.1175
- Beatty, M. J., Dobos, J. A., Valencic, K. M., & Rudd, J. E. (1998, November). *A preliminary investigation into the unexplored "dark side" of communication avoidance: Indirect interpersonal aggressiveness*. Paper presented at the annual meeting of the National Communication Association conference, New York, NY.
- Benoit, W. L. (1987). Argumentation and credibility appeals in persuasion. *Southern Journal of Communication*, *5*, 181-197. doi:10.1080/10417948709372687
- Bishop, S. C., Hill, P. S., & Lin, Y. (2012). Use of aggressive humor: Aggressive humor style, verbal aggressiveness and social dominance orientation. *Ohio Communication Journal*, *50*, 73-82.
- Boster, F. L., Levine, T., & Kazoleas, D. (1993). The impact of argumentativeness and verbal aggressiveness on strategic diversity and persistence in compliance-gaining behavior. *Communication Quarterly*, *41*, 405-414. doi:10.1080/01463379309369901
- Brown, P., & Levinson, S. C. (1987). *Politeness: Some universals in language use*. Cambridge, UK: Cambridge University Press.

- Canary, D. J., Brossmann, J. E., Brossman, B. G., & Weger Jr., H. (1995). Toward a theory of minimally rational argument: Analyses of episode-specific effects of argument structures. *Communication Monographs*, *62*, 183-212. doi:10.1080/03637759509376357
- Canary, D. J., & Spitzberg, B. H. (1987). Appropriateness and effectiveness perceptions of conflict strategies. *Human Communication Research*, *14*, 93-120. doi:10.1111/j.1468-2958.1987.tb00123.x
- Canary, D. J., & Spitzberg, B. H. (1990). Attribution biases and associations between conflict strategies and competence outcomes. *Communications Monographs*, *57*, 139-151. doi:10.1080/03637759009376191
- Christensen, A., & Heavey, C. L. (1990). Gender and social structure in demand/withdraw pattern of marital conflict. *Journal of Personality and Social Psychology*, *59*, 73-81. doi:10.1037/0022-3514.59.1.73
- Cionea, I. A., Richards, A. S., & Straub, S. K. (2017). Factors predicting the intent to engage in arguments in close relationships: A revised model. *Argumentation*, *31*, 121-163. doi:10.1007/s10503-016-9400-z
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*, 155-159. doi:10.1037/0033-2909.112.1.155
- Cook, W. L., & Kenny, D. A. (2005). The actor-partner interdependence model: A model of bidirectional effects in developmental studies. *International Journal of Behavioral Development*, *29*, 101-109. doi:10.1080/01650250444000405
- Copstead, G. J., Lanzetta, C. N., & Avtgis, T. A. (2001). Adult children conflict control expectancies: Effects on aggressive communication toward parents. *Communication Research Reports*, *18*, 75-83. doi:10.1080/08824090109384784

- Croucher, S. M., Braziunaite, R., Homsey, D., Pillai, G., Saxena, J., Saldanha, A., . . . , & Agarwal, K. (2009). Organizational dissent and argumentativeness: A comparative analysis between American and Indian organization. *Journal of Intercultural Communication Research, 38*, 175-191. doi:10.1080/17475759.2009.505057
- Cupach, W. R. (1982, May). *Communication satisfaction and interpersonal solidarity as outcomes of conflict message strategy use*. Paper presented at the annual meeting of the International Communication Association, Boston, MA. Retrieved from <http://files.eric.ed.gov/fulltext/ED217510.pdf>
- Dallinger, J. M., & Hample, D. (2002). The image of the ideal arguer. In G. T. Goodnight (Ed.), *Arguing communication and culture* (pp. 285-291). Washington DC: National Communication Association.
- Duran, R. L., & Spitzberg, B. H. (1995). Toward the development and validation of a measure of cognitive communication competence. *Communication Quarterly, 43*, 259-275. doi: 10.1080/01463379509369976
- Ehrlinger, J., Gilovich, T., & Ross, L. (2005). Peering into the bias blind spot: People's assessments of bias in themselves and others. *Personality and Social Psychology Bulletin, 31*, 680-692. doi:10.1177/0146167204271570
- Gonzalez, R., & Griffin, D. (2000). On the statistics of interdependence: Treating dyadic data with respect. In W. Ickes & S. Duck (Eds.) *The social psychology of personal relationships* (3rd ed., pp. 181-213). New York, NY: Wiley.
- Gross, M. A., & Guerrero, L. K. (2000). Managing conflict appropriately and effectively: An application of the competence model to Rahim's organizational conflict styles. *International Journal of Conflict Management, 11*, 200-226.

doi:10.1108/eb022840

Hamilton, M. A., & Mineo, P. J. (2002). Argumentativeness and its effect on verbal aggressiveness: A meta-analytic review. In M. Allen, R. W. Preiss, B. M. Gayle, & N. Burrell (Eds.), *Interpersonal communication research: Advances through meta-analysis* (pp. 281-314). Mahwah, NJ: Erlbaum.

Hample, D. (2002). Inventional capacity. *International Society for the Study of Argumentation Proceedings*. Retrieved from <http://rozenbergquarterly.com/issa-proceedings-2002-inventional-capacity/?print=pdf>

Hample, D. (2005). *Arguing: Exchanging reasons face to face*. Mahwah, NJ: Erlbaum.

Hample, D., & Dallinger, J. M. (1987). Individual differences in cognitive editing standards. *Human Communication Research*, 14, 123-144. doi:10.1111/j.1468-2958.1987.tb00124.x

Hmielowski, J. D., Hutchens, M. J., & Cicchirillo, V. J. (2014). Living in an age of online incivility: Examining the conditional indirect effects of online discussions on political flaming. *Information, Communication, & Society*, 17. doi:10.1080/1369118X.2014.899609

Infante, D. A. (1987). Aggressiveness. In J. C. McCroskey & J. A. Daly (Eds.), *Personality and interpersonal communication* (pp. 157-192). Newbury Park, CA: Sage.

Infante, D. A., Chandler, T. A., & Rudd, J. (1989). Test of an argumentative skill deficiency model of interspousal violence. *Communication Monographs*, 56, 163-177. doi:10.1080/03637758909390257.

Infante, D. A., Heinen Wall, C., Leap, C. J., & Danielson, K. (1984). Verbal aggression as a function of the receiver's argumentativeness. *Communication Research Reports*, 1, 33-

37.

Infante, D. A., & Rancer, A. S. (1982). A conceptualization and measure of argumentativeness.

Journal of Personality Assessment, 46, 72-80. doi:10.1207/s15327752jpa4601_13

Infante, D. A., Rancer, A. S., & Avtgis, T. A. (2010). *Contemporary communication theory*.

Dubuque, IA: Kendall Hunt.

Infante, D. A., Trebing, J. D., Shepherd, P. E., & Seeds, D. E. (1984). The relationship of

argumentativeness to verbal aggression. *Southern Communication Journal*, 50, 67-77.

doi:10.1080/10417948409372622

Infante, D. A., & Wigley, C. J., III (1986). Verbal aggressiveness: An interpersonal model and

measure. *Communication Monographs*, 53, 61-69. doi:10.1080/03637758609376126

Jones, E., & Nisbett, R. (1971). *The actor and the observer: Divergent perceptions of the causes*

of behavior. New York, NY: General Learning Press.

Johnson, A. J., Averbeck, J. M., Kelley, K. M., & Liu, S. (2010). Serial arguments and argument

type: Comparing serial arguments about public and personal issue argument topics. In

Dennis S. Gouran (Ed.), *The functions of argument and social context: Selected papers*

from the 16th biennial conference on argumentation (pp. 211-218). Washington, DC:

National Communication Association.

Johnson, A. J., Becker, J. A. H., Wigley, S., Haigh, M. M., & Craig, E. A. (2007). Reported

argumentativeness and verbal aggressiveness levels: The influence of type of argument.

Communication Studies, 58, 189-205. doi:10.1080/10510970701341154

Johnson, K. L., & Roloff, M. E. (1998). Serial arguing and relational quality: Determinants and

consequences of perceived resolvability. *Communication Research*, 25, 327-343.

doi:10.1177/009365098025003004

- Kenny, D. A. (n.d.). *Actor-partner interdependence model estimated using multilevel modeling* [Online program]. Retrieved from https://davidakenny.shinyapps.io/APIM_MM/
- Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Dyadic data analysis*. New York, NY: Guilford.
- Kenny, D. A., & West, T. V. (2010). Similarity and agreement in self-and other perception: A meta-analysis. *Personality and Social Psychology Review, 14*, 196-213.
doi:10.1177/1088868309353414
- Kotowski, M. R., Levine, T. R., Baker, C. R., & Bolt, J. M. (2009). A multitrait-multimethod validity assessment of the verbal aggressiveness and argumentativeness scales. *Communication Monographs, 76*, 443-462. doi:10.1080/03637750903300247
- Kruger, J., & Dunning, D. (1999). Unskilled and unaware of it: How difficulties in recognizing one's own incompetence lead to inflated self-assessments. *Journal of Personality and Social Psychology, 77*, 1121-1134. doi:10.1037%2F0022-3514.77.6.1121
- Levine, T. R., Beatty, M. J., Limon, S., Hamilton, M. A., Buck, R., & Chroy-Asad, R. M. (2004). The dimensionality of the verbal aggressiveness scale. *Communication Monographs, 71*, 245-269. doi:10.1080/0363452042000299911
- Levine, T. R., & Boster, F. J. (1996). The impact of self and others' argumentativeness on talk about controversial issues. *Communication Quarterly, 44*, 345-35. doi:10.1080/01463379609370022
- Levine, T. R., Kotowski, M. R., Beatty, M. J., & Van Kelegom, M. J. (2012). A meta-analysis of trait-behavior correlations in argumentativeness and verbal aggressiveness. *Journal of Language and Social Psychology, 31*, 95-111. doi:10.1177/0261927X11425037
- Martin, M. M., & Anderson, C. M. (1995). Roommate similarities: Are roommates who are

- similar in their communication traits more satisfied? *Communication Research Reports*, 12, 46-52. doi:10.1080/08824099509362038
- McCroskey, J. C., & McCroskey, L. L. (1988). Self-report as an approach to measuring communication competence. *Communication Research Reports*, 5, 108-113. doi:10.1080/08824098809359810
- McEwan, B. (2013). Sharing, caring, and surveilling: An actor-partner interdependence model examination of Facebook relational maintenance strategies. *Cyberpsychology, Behavior, and Social Networking*, 16, 863-869. doi:10.1089/cyber.2012.0717
- Mongeau, P. A. (1989). Individual differences as moderators of persuasive message processing and attitude-behavior relations. *Communication Research Reports*, 6, 1-6. doi:10.1080/08824098909359825
- National Association of Colleges and Employers (2018). *Job outlook 2018*. Retrieved from <https://www.naceweb.org/store/2017/job-outlook-2018/>
- Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology*, 2, 175-220. doi:10.1037/1089-2680.2.2.175
- Nicotera, A. M., Steele, J., Catalani, A., & Simpson, N. (2012). Conceptualization and test of an aggressive competence model. *Communication Research Reports*, 29, 12-25. doi:10.1080/08824096.2011.639909
- Onyekwere, E. O., Rubin, R. B., & Infante, D. A. (1991). Interpersonal perception and communication satisfaction as a function of argumentativeness and ego-involvement. *Communication Quarterly*, 39, 35-47. doi:10.1080/01463379109369781
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended

- remedies. *Journal of Applied Psychology*, 88, 879-903. doi:10.1037/0021-9010.88.5.879
- Pronin, E., Gilovich, T., & Ross, L. (2004). Objectivity in the eye of the beholder: divergent perceptions of bias in self versus others. *Psychological Review*, 111, 781-799. doi:10.1037/0033-295X.111.3.781
- Rancer, A. S., & Avtgis, T. A. (2014). *Argumentative and aggressive communication: Theory, research, and application* (2nd ed.). New York, NY: Peter Lang.
- Rapanta, C., Garcia-Mila, M., & Gilabert, S. (2013). What is meant by argumentative competence? An integrative review of methods of analysis and assessment in education. *Review of Educational Research*, 83, 483-520. doi:10.3102/0034654313487606
- Roper, R., Johnson, A. J., & Bostwick, E. N. (2017). A target's perspective: Verbal aggressiveness, coping strategies, and relational harm. *Communication Research Reports*, 34, 21-28. doi:10.1080/08824096.2016.1230544
- Semic, B. A., & Canaray, D. J. (1997). Trait argumentativeness, verbal aggressiveness, and minimally rational argument: An observational analysis of friendship discussions. *Communication Quarterly*, 45, 355-378. doi:10.1080/01463379709370071
- Spitzberg, B. H. (1983). Communication competence as knowledge, skill, and impression. *Communication Education*, 32, 323-329. doi:10.1080/03634528309378550
- Spitzberg, B. H. (2009). Interpersonal communication competence and social skills. In W. Donsbach (Ed.), *International encyclopedia of communication* (pp. 2486 - 2492). Oxford, UK: Blackwell.
- Spitzberg, B. H., & Cupach, W. R. (1984). *Interpersonal communication competence*. Beverly Hills, CA: Sage.
- Spitzberg, B. H., & Cupach, W. R. (2011). Interpersonal skills. In M. L. Knapp & J. A. Daly

(Eds.), *The SAGE handbook of interpersonal communication* (4th ed., pp. 481-524).

Thousand Oaks, CA: Sage.

Trapp, R., Yingling, J., & Wanner, J. (1987). Measuring argumentative competence. In F. H. van Eemeren, R. Grootendorst, J. A. Blair, & C. A. Willard (Eds.), *Argumentation: Across the lines of discipline* (pp. 253-61). Dordrecht, Holland: Foris.

Willard, N. E. (2007). *Cyberbullying and cyberthreats: Responding to the challenge of online social aggression, threats, and distress*. Champaign, IL: Research Press.

Zakahi, W. R. & Duran, R. L. (1984). Attraction, communicative competence and communication satisfaction. *Communication Research Reports*, 1, 54-57.

Table 1

Grand Means, Grand Standard Deviations, and Reliability Scores for Study Variables

Variable	Cronbach's alpha	<i>M</i>	<i>SD</i>
Argumentativeness approach	.88	4.41	1.02
Argumentativeness avoidance	.87	4.18	1.07
Verbal aggressiveness constructive ^a	.81	4.80	0.92
Verbal aggressiveness destructive	.85	3.15	1.00
Topic importance ^a	.92	4.04	1.52
“Texting while driving should be harshly penalized”	.92	4.60	1.01
“Student athletes should be paid”	.92	3.25	1.49
Topic knowledge	.87	4.17	1.41
Argument effectiveness (participant self-report) ^a	.85	5.37	0.82
Argument effectiveness (observer rating) ^{ab}	.77 ^b	3.98	0.73
Argument appropriateness (participant self-report)	.87	6.02	0.83
Argument appropriateness (observer rating) ^b	.73 ^b	5.89	0.23
Argument satisfaction	.90	6.03	0.84

Notes:

N = 282^a One item dropped from this scale^b *n* = 100 participants rated, pooled Cronbach's alpha reported

Table 2
Zero-Order Correlations of Study Variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Argumentativeness approach	1.00										
2. Argumentativeness avoidance	-.70***	1.00									
3. Verbal aggressiveness constructive	-.21***	.44***	1.00								
4. Verbal aggressiveness destructive	.33***	-.21***	-.57***	1.00							
5. Topic importance	.06	.06	.14*	-.02	1.00						
6. Topic knowledge	.10	-.06	-.00	.08	.63***	1.00					
7. Argument effectiveness (participant self-report)	.15**	-.09	.08	.02	.21***	.34***	1.00				
8. Argument effectiveness (observer rating) ^a	.05	.14	-.06	.03	-.03	.13	.16	1.00			
9. Argument appropriateness (participant self-report)	-.09	.05	.23***	-.29***	-.01	.06	.22***	.12	1.00		
10. Argument appropriateness (observer rating) ^a	.06	-.07	.07	-.00	-.13	-.14	-.09	.08	.11	1.00	
11. Argument satisfaction	.06	.03	.22***	-.09	.22***	.20***	.53***	-.12	.40***	.00	1.00

Notes:

N = 282

^a *n* = 100 participants rated

Table 3
Intraclass Correlations (ICC, ρ), Indistinguishable Dyad Members on Tested Variables

	1.'	2.'	3.'	4.'	5.'	6.'	7.'
1. Argument effectiveness	-.08						
2. Argument appropriateness	.06	.29***					
3. Argument satisfaction	.03	.25***	.18**				
4. Argument approach	-.04	.01	-.09	.07			
5. Argument avoidance	.03	-.00	.11	-.14*	.19***		
6. Verbal aggressiveness constructive	.02	.06	.15*	-.12*	.16**	.33***	
7. Verbal aggressiveness destructive	.00	-.01	-.09	.00	-.09	-.24***	.12

Notes:

Uncorrected ICC values. One dyad member is represented by the vertical values (#1 - #7) and the other dyad member is represented by the horizontal values (#1' - #7'). **Bolded values on the diagonal represent ICCs between self and other ratings on each variable.**

$N_{\text{pairwise}} = 141, N = 282$

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$