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An Integrative Approach to the Prediction of Argumentativeness

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ABSTRACT

This study explored the extent to which demographics (age and level of education), the “Big Three,” (extraversion, neuroticism, and psychoticism), cognitive dispositions (locus of control and resilience), and social personal dispositions (Machiavellianism) combine to predict argumentativeness. Based on a representative sample of 877 participants from the United States, the results revealed that when taken together, previously established effects of some of these variables on attitude toward arguing are verified, although some are not consistent. Level of education and locus of control did not affect attitude toward approaching an argument as in the previous research. Implications for future research are discussed, with an emphasis on future research taking a more comprehensive approach to the study of communication.

KEYWORDS

Argumentativeness;
interpersonal
communication;
Machiavellianism;
personality traits; regression

For more than four decades, researchers have been exploring the factors that influence an individual’s level of argumentativeness. Argumentativeness is defined as a relatively stable trait that “predisposes an individual in communication situation(s) to advocate positions on controversial issues and to attack verbally the positions which other people take on these issues” (Infante & Rancer, 1982, p. 72). Various communicative traits and behaviors have been shown to predict an individual’s level of argumentativeness, such as communication apprehension (Howe & Cionea, 2021), verbal aggression (Kotowski et al., 2009; Weger, 2006), self-construal (Croucher et al., 2010; Merz, 2009), dissent (Croucher et al., 2009; Goodboy & Myers, 2012), conflict (Hample & Anagondahalli, 2015), compliance gaining tactics (Infante et al., 1993), perceived instructor credibility (Edwards & Myers, 2007), political participation (Croucher et al., 2013), and romantic attachment (Weger, 2006).

In addition to linking traits and behaviors to argumentativeness, researchers have explored the extent to which demographics and personality influence argumentativeness. Research has demonstrated that personality affects behavior (Daly, 2011; Mischel, 1968; Saucier, 2009). Independently, the “Big Three” personality dimensions of neuroticism, extraversion, and psychoticism (Eysenck & Eysenck, 1963), as well as cognitive dispositions (such as locus of control), social personal dispositions (such as Machiavellianism), and demographics (sex, age, and educational level) have all been explored as predictors of argumentativeness, each varying in predictive strength. Exploring the independent influence of these traits on argumentativeness has helped better explain argumentativeness as a behavior. Our tendency to argue, or argumentativeness, is a defining feature of humanity and one of the most frequently studied constructs in communication (Croucher et al., 2024; Hamilton & Hample, 2011; Hample & Anagondahalli, 2015; Rancer, 1998; Wigley et al., 2023). Daly (2011) asserted a more comprehensive or integrative scheme for predicting human behavior combines an

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understanding of the extent to which the combination of demographics, the “Big Three,” cognitive dispositions, and social personal dispositions all predict a communicative construct. Thus, the purpose of this study is to integrate previously studied constructs, following Daly’s integrative scheme. Specifically, this study explores the extent to which the following constructs predict argumentativeness: demographics (age and educational level), the “Big Three” (extraversion, neuroticism, and psychoticism), cognitive dispositions (locus of control and resilience), and Machiavellianism.

Argumentativeness

Argumentativeness is a predisposition to verbally advocate for one’s position on an issue and to verbally counter/attack positions others may hold. Those who score high on argumentativeness scales (high on approach) are more comfortable advocating their positions. Those who score low on argumentativeness scales tend to avoid such situations and are less comfortable advocating their positions (Infante & Rancer, 1982; Rancer & Avtgis, 2014). Early conceptualizations of argumentativeness defined it as a two-dimensional construct (approach/avoid); more recent research has found argumentativeness to be unidimensional. Research has traditionally treated argumentativeness as a relatively stable characteristic, with minor variations over time (Croucher et al., 2018). The most frequently used measure of argumentativeness is Infante and Rancer’s 20-item measure, which assesses the tendency to approach and avoid argument. While focusing predominantly on samples from the United States, researchers have conducted research in Europe, East and West Asia, South America, and Oceania (Croucher et al., 2009, 2010, 2024; Hackman et al., 1995; Lewiński et al., 2018; Rancer & Avtgis, 2014; Rapanta & Hample, 2015; Santibáñez et al., 2021; Subanaliev et al., 2018; Suzuki & Rancer, 1994).

Various demographic variables have been studied as predictors of argumentativeness. Schullery and Schullery (2003) found a negative relationship between argumentativeness and age and a positive relationship between level of argumentativeness and education. Specifically, scaling showed argumentativeness decreased among men through their 20s and leveled off through their mid-40s. Argumentativeness decreased slowly for women through their 30s and increased through their 50s. In terms of education, the effect was strongest among men and stronger among high-argumentatives. Schullery and Schullery (2003) assert the changes in argumentativeness levels across age and educational levels could be attributed to cultural effects, such as the glass-ceiling in the workplace. Aside from Schullery’s and Schullery (2003), research has shown no significant differences between men and women on levels of argumentativeness, but this does not consider social desirability bias in how argumentativeness is measured (Infante, 1989; Nicotera, 1996; Rancer & Dierks-Stewart, 1985; Schullery, 1998).

Argumentativeness and the Big Three

Research has explored the links between argumentativeness and Eysenck’s personality dimensions of extraversion, neuroticism, and psychoticism – known as the “Big Three” (Blickle, 1995, 1997; Levine & McCornack, 1991; McCroskey et al., 2001). Higher levels of argumentativeness tend to be reported by individuals ranked higher in measures of psychoticism, or those described as cold, unemphatic, aggressive, careless, egocentric, impulsive, cruel, vindictive, and anti-social (Latzman et al., 2014; McCroskey et al., 2001; Tohver, 2020). In these studies, the researchers have asserted that those who score higher on psychoticism tend to score higher on argumentativeness because they are more likely to advocate their position to protect their ego. Similarly, argumentativeness is positively associated with extraversion – a trait associated with being sociable, active, sensation-seeking, dominant, carefree, assertive, adventurous, and friendly (Croucher et al., 2024; Eysenck & Eysenck, 1963; McCroskey et al., 2001; Saklofske et al., 2012; Tohver, 2020). This line of research has generally asserted that highly extraverted and highly argumentative individuals tend to also be highly assertive and self-accepting (Croucher et al., 2024; McCroskey et al., 2001). Furthermore, past research has shown a negative

relationship between argumentativeness and neuroticism (Blickle, 1997; Tohver, 2020). As neuroticism is a trait associated with shyness and nervousness, it is logical that individuals scoring higher on neuroticism would be less comfortable engaging in argument. However, McCroskey et al. (2001) found a non-significant negative relationship; this non-significant relationship was not explained by the authors. Individuals high in neuroticism and low in argumentativeness also tend to be lower in self-acceptance, assertiveness, and high in shyness (McCroskey et al., 2001).

Argumentativeness and cognitive dispositions

Various cognitive dispositions have been explored as predictors of argumentativeness. Separately, the locus of control and resilience have been shown to predict argumentativeness. The concept of locus of control has been used extensively to explore individual psychological differences. Locus of control refers to an individual's beliefs about control over life events, categorizing the individual as "internals" (taking personal responsibility) or "externals" (attributing outcomes to external factors) (Findley & Cooper, 1983; Lefcourt, 1976; Phares, 1976; Rotter, 1954).

Locus of control is directly related to a person's communication predisposition (Merz, 2009). Avtgis and Rancer (1997), for example, investigated the relationship between the locus of control and argumentativeness. Their work showed individuals with an internal control orientation displayed higher levels of constructive aggressive dispositions than those emphasizing an external locus of control. As individuals seek control, argumentation is one way to communicatively control a situation and expectations (Avtgis & Rancer, 1997). Similarly, Merz (2009) highlighted the significance of a perceived internal control as a predictor of argumentativeness; individuals perceiving internal control exhibited greater argumentativeness compared to those perceiving an external locus of control. Merz (2009) explained individuals who perceive themselves as in control of communication situations or interactions are more likely to be comfortable in argumentative situations.

Resilience is the process of positive adaptive change when facing adversity (Masten, 1994). It involves learned behaviors and actions and is a malleable quality (Masten & Reed, 2002). Resilience can be built through social support (Sippel et al., 2015), realistic planning (Davies et al., 2015), self-efficacy (Schwarzer & Warner, 2012), and interpersonal communication skills (Afifi, 2018). Little research has been done directly exploring the link between argumentativeness and resilience. However, Baby (2016) found experiential learning elevated both resilience and tolerance for disagreement. Baby (2016) asserts that team building and group communication activities affect the relationship between resilience and tolerance for disagreement. Mallahi (2024) argued resilience is positively related to the ability to write more argumentatively. In this instance, Mallahi asserted that more resilient students are more capable of constructing thoughtful and therefore argumentative arguments.

Argumentativeness and Machiavellianism

Machiavellianism has been studied extensively in conjunction with argumentativeness. Machiavellianism is the trait of being highly manipulative to achieve a desirable end, such as a financial windfall or increased power status (either personal or professional) through communication strategies (Geanopulos, 1994). One's level of Machiavellianism is their tendency to distrust others, be involved in immoral manipulation, attempt to control others, and pursue a personal reputation (Dahling et al., 2009). Argumentativeness is positively related to Machiavellianism (Geanopulos, 1994; Malachowski et al., 2013; Mansson & Croucher, 2017; Martin et al., 2006). Geanopulos (1994) described how high Machiavellians who promote cynical strategies are expected to engage in (or initiate) arguments. Whereas those who endorse deceitful strategies are unlikely to initiate an argument are also unlikely to avoid arguments initiated by someone else. Martin et al. (2006) showed that students' scores on Machiavellianism were positively, but not strongly, related to excuse making and sycophancy. Collectively, research on Machiavellianism shows that higher Machiavellians see arguments as a means to achieve functional communicative and personal goals, thus the positive

relationship between Machiavellianism and argumentativeness (Geanopulos, 1994; Malachowski et al., 2013; Mansson & Croucher, 2017; Martin et al., 2006).

Hypotheses and research question

This study aims to develop a more heuristic understanding of argumentativeness and explores the influence of demographic variables, the “Big Three” personality traits, cognitive dispositions, and Machiavellianism on argumentativeness. Previous argumentativeness research has found combinations of traits and variables influence argumentativeness to varying degrees. While prior research has independently explored the constructs previously discussed, a combination of several dispositions and variables may provide a more complete overview of a construct (Daly, 2011). Specifically, Daly (2011) suggested a more integrative approach to examining interpersonal communication; combining demographics, dispositions, and psychological attributes provides a more comprehensive understanding of communicative traits. Therefore, we propose hypotheses and research questions to build a heuristic understanding of argumentativeness.

This study considers measurement development work in argumentativeness. Whereas Infante and Rancer (1982) operationalized argumentativeness as being composed of approach and avoidance attitudes, Kotowski et al. (2009) indicated Infante and Rancer’s (1982) measure likely had a second false factor. When Infante and Rancer’s (1982) measure was developed, statistical software for testing assessments through confirmatory factor analysis (CFA) were not available. Thus, it was difficult to determine if measurement was composed of items measuring two highly correlated constructs or the same construct. Kotowski et al. (2009) explain that it is highly likely Infante and Rancer’s (1982) measure assessed two separate variables: attitude toward approaching and avoiding arguments. Like Kotowski et al. (2009), this paper will assess Infante and Rancer’s (1982) measure through CFA and consider whether the total argumentativeness measure or only the items assessing attitude toward approaching an argument seem to form the more valid measure.

Building on recent calls for replication and increased validity analyses (Croucher & Kelly, 2020; Kelly & Westerman, 2020), we hope this study will assist other researchers in better understanding the validity of these and in conducting meta-analyses and/or replications. The first three hypotheses of this study further understanding around the predictive power of the “Big Three” personality traits (extraversion, neuroticism, and psychoticism) on argumentativeness. Research has demonstrated these traits influence argumentativeness (Blickle, 1997; Latzman et al., 2014; McCroskey et al., 2001; Saklofske et al., 2012; Tohver, 2020) and the following hypotheses are proposed to confirm the links between these traits and argumentativeness:

H1: Extraversion is positively associated with argumentativeness.

H2: Neuroticism is negatively associated with argumentativeness.

H3: Psychoticism is positively associated with argumentativeness.

Research has shown links between argumentativeness and demographic variables (age and level of education) (Nicotera, 1996; Schullery & Schullery, 2003). The following hypotheses are proposed to further our understanding of the link between age and level of education and argumentativeness:

H4: Age is negatively associated with argumentativeness.

H5: Level of education is positively associated with argumentativeness.

Extensive study of locus of control, in conjunction with argumentativeness, has shown a difference between the internal and external locus of control on argumentativeness (Avtgis & Rancer, 1997;

Merz, 2009). Specifically, research shows that the locus of control is positively related to argumentativeness. Thus, the following two hypotheses are put forth:

H6: An internal locus of control is positively associated with argumentativeness.

H7: An external locus of control is negatively associated with argumentativeness.

Little research has directly linked argumentativeness and resilience. However, research shows resilience increases tolerance for disagreement. The first research question explores the link between argumentativeness and resilience, a cognitive disposition:

RQ1: To what extent are resilience and argumentativeness related?

Machiavellianism has been studied extensively in conjunction with argumentativeness, and research has consistently shown a positive relationship (Mansson & Croucher, 2017; Martin et al., 2006). The final hypotheses test the links between social and personal dispositions and argumentativeness:

H8: Machiavellianism is positively associated with argumentativeness.

Each of the constructs has been shown to predict argumentativeness to differing extents.

Method

After ethical approval, a nationally representative sample from the United States ($n = 879$) was collected using a Qualtrics Panel. Participants ranged in age from 18 to 65 ($M = 32.18$, $SD = 14.36$). There was a total of 396 males (45.1%), 477 females (54.5%), and 6 other (.7%). In terms of educational level, 598 (68%) had a high-school degree, 88 (10%) had at least 2-years of university education, 134 (15.3%) had a university degree, 48 (5.5%) had a post-graduate degree, and 11 (1.3%) had a PhD or equivalent. As for race/ethnicity, 614 self-identified as White (69.9%), 120 (13.7%) as Black, 53 (6%) as Asian, 45 (5.1%) as Hispanic, and 47 (5.3%) as Other. Selection criteria for inclusion in this study required participants to be at least 18-years of age and reside in the US. Participants completed a series of assessments and demographic questions. The questionnaire took on average 15–20 min to complete. Participants received a small financial incentive for participation.

Instruments

Before hypothesis testing, each measurement model was subjected to CFA to verify the hypothesized factor structure using Hu and Bentler's (1999) standards of fit. Measurement testing through CFA is a critical step in social science research considering the linguistic differences in word use among participants, especially when using older measures that have never been subjected to CFA (Croucher et al., 2024; Kelly & Westerman, 2020; Kotowski et al., 2009; McEwan et al., 2018).

When misfit was indicated in the measures, the standard residual covariance matrix was examined the items causing statistically significant residual error across the greatest number of items were removed, one at a time, until the fit statistics were sound. Residual error between items can indicate three factors (Kline, 2023). First, the items may be so similarly worded they become redundant. Second, the items may be working together to capture a related construct different than the construct of interest. Third, an item may be measuring a separate, but correlated construct. In some cases, this removes items with strong factor loadings but lets residual error guide item removal. This is important given Kotowski et al. (2009) concern that the argumentativeness measure assessed two separate highly correlated constructs. All measures were treated consistently with the CFA procedures.

Table 1. Argumentativeness Items Removed – Factor Loadings and Correlation Matrix.

	Factor Loading	1	2	3	4	5	6	7	8	9
1. While in an argument, I worry that the person I am arguing with will form a negative impression of me.	0.38									
2. I enjoy avoiding arguments.	0.68	0.56								
3. Once I finish an argument, I promise myself that I will not get into another.	0.50	0.61	0.61							
4. Arguing with a person creates more problems for me than it solves.	0.47	0.46	0.58	0.50						
5. When I finish arguing with someone, I feel nervous and upset.	0.49	0.59	0.59	0.60	0.62					
6. I get an unpleasant feeling when I realize I am about to get into an argument.	0.49	0.59	0.60	0.60	0.54	0.62				
7. I am happy when I keep an argument from happening.	0.62	0.45	0.65	0.56	0.58	0.55	0.60			
8. I prefer being with people who rarely disagree with me.	0.41	0.46	0.54	0.55	0.47	0.54	0.54	0.62		
9. I find myself unable to think of effective points during an argument.	0.35	0.39	0.41	0.40	0.40	0.50	0.44	0.44	0.44	
10. I try to avoid getting into arguments.	0.61	0.32	0.62	0.42	0.53	0.42	0.55	0.66	0.48	0.41

Argumentativeness Scale

The Argumentativeness Scale (Infante & Rancer, 1982) is a 20-item measure, which assesses the tendency to avoid and approach argument. The difference between approach and avoid is total argumentativeness. Lower, or negative scores, indicate lower levels of argumentativeness and higher scores indicate higher levels. A sample item is “I am energetic and enthusiastic when I argue.” Items are rated from 1 *almost never true* to 5 *almost always true* (Croucher et al., 2021; Kotowski et al., 2009). We tested the current data using CFA against Infante and Rancer’s proposed structure and only the approach-oriented structure as proposed by Kotowski et al. (2009). Fit of Infante and Rancer’s measure was poor: $\chi^2(170) = 4390.07$, $p < .0001$, CFI = .68, SRMR = .15, RMSEA = .17. Like Kotowski et al. (2009), we found fit of the positively approach-worded items, yet all 10 were adequate predictors rather than eight as Kotowski et al. (2009) found (see Table 1 for more detail on the removed items.) The fit of the approach items was strong $\chi^2(43) = 246.73$, $p < .0001$, CFI = .97, SRMR = .06, RMSEA = .07. As such, the assessment of attitude toward approaching an argument was used for analyses. The descriptive statistics for the measure were $\omega = .91$ ($M = 3.47$, $SD = 1.05$).

Eysenck Personality Questionnaire

A 24-item version of the Revised Eysenck Personality Questionnaire (EPQR; Francis et al., 1992) was used. This scale assesses four dimensions of personality: extraversion, neuroticism, psychoticism, and tendency to lie. In the current study, only the first three dimensions were included, as previous research on the EPQR showed measurement of the tendency to lie to be unreliable. Each item is scored from yes (0) to no (1). A sample item is “Are you a worrier?”. Initial fit statistics for the measure were $\chi^2(132) = 4266.50$, $p < .0001$, CFI = .61, SRMR = .15, RMSEA = .19 and final fit, less four problematic items, were $\chi^2(86) = 480.52$, $p < .0001$, CFI = .96, SRMR = .09, RMSEA = .08.¹ The descriptive statistics for the measures were as follows: extraversion $\omega = .74$ ($M = 3.45$, $SD = .96$), neuroticism $\omega = .76$ ($M = 3.31$, $SD = 1.09$), and psychoticism $\omega = .82$ ($M = 2.99$, $SD = 1.19$).

Multidimensional locus of control scale

Levenson and Miller’s (1976), pp. 24-item scale was used to measure the locus of control. The scale measures three dimensions: internal, powerful others, and chance. Items range from *strongly disagree* (–3) to *strongly agree* (3). A sample item is “When I make plans, I am almost certain to make them work.” Initial fit statistics were $\chi^2(249) = 4095.16$, $p < .0001$, CFI = .46, SRMR = .14, RMSEA = .13 and final fit were $\chi^2(109) = 228.88$, $p < .0001$, CFI = .96, SRMR = .08, RMSEA = .07.² Descriptive statistics for the measures include internal $\alpha = .35$ ³ ($M = 40.60$, $SD = 2.93$), powerful $\omega = .74$ ($M = 36.75$, $SD = 2.98$), and chance $\omega = .49$ ($M = 42.97$, $SD = 3.96$).

Connor-Davidson Resilience Scale

Campbell-Sills and Stein's (2007) revised version of the Connor-Davidson Resilience Scale (CD-RISC) assessed resilience. The CD-RISC is a 10-item measure ranging from (0) *not true at all* to (4) *true nearly all the time*. Sample items include: "I am able to adapt to change," and "Coping with stress can strengthen me." Initial fit statistics were $\chi^2(35) = 528.02$, $p < .0001$, CFI = .84, SRMR = .06, RMSEA = .13 and final were $\chi^2(20) = 48.52$, $p = .09$., CFI = .98, SRMR = .06, RMSEA = .08.⁴ The descriptive statistics were $\omega = .85$ ($M = 3.25$, $SD = .82$).

Machiavellianism Scale

Dahling et al.'s (2009) Machiavellian Personality Scale (MPS) was used to assess four dimensions of Machiavellianism: amorality, desire for control, desire for status, and distrust of others. The MPS is a 16-item scale ranging from (1) *strongly disagree* to (5) *strongly agree*. Sample items include: "I believe that lying is necessary to maintain a competitive advantage over others," and "Status is a good sign of success in life." Initial fit statistics were $\chi^2(98) = 1657.15$, $p < .001$, CFI = .77, SRMS = .12, RMSEA = .14 and final were $\chi^2(35) = 74.52$, $p < .001$, CFI = .95, SRMS = .08, RMSEA = .08.⁵ Descriptive statistics were: amorality $\alpha = .65$ ($M = 2.71$, $SD = 1.06$), desire for control $\alpha = .80$ ($M = 3.16$, $SD = 1.21$), desire for status $\alpha = .60$ ($M = 2.97$, $SD = 1.02$), and distrust of others $\alpha = .75$ ($M = 2.71$, $SD = 1.08$).

Analysis and results

Before hypothesis testing, a common method bias analysis was performed. Harman's (1967) single factor test of common method variance indicated that 24.28% of the variance in items were explained when treated as one factor. This falls far below the problematic heuristic of 50%, indicating analyses can be conducted without fear of common method bias skewing results.

To explore the data, a path analysis was built using the AMOS maximum likelihood parameter estimation algorithm. Path analysis is a form of structural equation modeling most appropriate for survey measures. It allows for composite measure scores to be used as predictors rather than requiring each unique item in a survey to be a separate observation (Kline, 2023). Working with the assumption that personality predicts attitude, attitude toward approaching arguments was set as the dependent variable with the following independent variables: age, educational level, "Big Three" personality locus of control (a latent variable composed of internal, chance, and external), resilience, and Machiavellianism (a latent variable composed of desire for control, amorality, desire for status, distrust for others).

The correlation matrix between all variables is shown in Table 2 and the results of the path analysis are shown in Table 3. Fit of the model as $\chi^2(60) = 1025.00$, $p < .001$, CFI = .81, SRMR = .12, RMSEA = .14. The model had an overall poor fit, primarily from the misfit of internal control and distrust of others. Once these sub-measures were removed from the model, the fit improved substantially: $\chi^2(37) = 444.81$, $p < .001$, CFI = .91, SRMR = .07, RMSEA = .11.

The "Big Three" personality traits were significantly associated with attitudes toward approaching arguments. Although personality had an overall positive relationship with approaching arguments, all three traits also had positive relationships with the latent construct of personality, confirming *H1*, and *H3*, but contradicting *H2*, which predicted an overall negative relationship between neuroticism and argumentativeness. Second, age was significantly associated with approaching arguments ($b = -.17$, $p < .001$), confirming *H4*. However, the educational level was not associated with approaching arguments ($b = -.05$, $p = .21$), contradicting *H5*. Resilience had no effect on the approaching arguments ($b = -.01$, $p = .64$), answering *RQ1*. Further, the locus of control was not associated with approaching arguments ($b = .00$, $p = .98$), yielding no support of *H6* or *H7*. Finally, Machiavellianism was positively associated with approaching arguments ($b = .22$, $p < .001$) yielding support for *H8*. Overall, these variables account for 52% of the variance ($R^2 = .52$) in argument approach attitude.

Table 2. Correlations for Study Variables.

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
(1) ARG		-												
(2) Extraversion	.51**													
(3) Neuroticism	.39**	.79**												
(4) Psychoticism	.48**	.78**	.69**											
(5) Resilience		-.31**	-.26**	-.38**	-.31**									
(6) Internal Control	-.08*	-.05	-.08*	-.02	.26**									
(7) External Control	.17**	.31**	.32**	.31**	-.25**	.11**								
(8) Chance Control	.12**	.25**	.31**	.29**	-.29**	.21**	.69**							
(9) Amorality		.25**	.33**	.30**	.37**	-.12**	.08*	.26**	.34**					
(10) Desire Control	.30**	.31**	.26**	.33**	-.18**	-.01	.35**	.20**	.32**					
(11) Desire Status	-.05	.02	.01	.05	.09**	.26**	.28**	.25**	.24**	.46**				
(12) Distrust Others	-.33**	-.22**	-.10**	-.17**	.15**	.26**	.13**	.20**	-.04	.13**	.42**			

* $p < .05$, ** $p < .001$.**Table 3.** Regression Weights.

			Standardized Estimate	p	Error Variance
Original					
Psychoticism	←	Big Three	0.83	<.001	0.44
Neuroticism	←	Big Three	0.84	<.001	0.36
Extraversion	←	Big Three	0.94	<.001	0.11
Internal Control	←	Control	0.17	<.001	8.34
Chance Control	←	Control	0.80	<.001	5.55
Powerful Other	←	Control	0.86	<.001	2.39
Distrust Others	←	Machiavellianism	0.25	<.001	1.09
Desire for Status	←	Machiavellianism	0.64	<.001	0.61
Desire for Control	←	Machiavellianism	0.68	<.001	0.78
Amorality	←	Machiavellianism	0.48	<.001	0.66
Argumentativeness	←	Education	-0.04	0.21	0.55
Argumentativeness	←	Age	-0.20	<.001	
Argumentativeness	←	Resilience	-0.01	0.82	
Argumentativeness	←	Machiavellianism	0.14	0.01	
Argumentativeness	←	Control	0.03	0.45	
Argumentativeness	←	Big Three	0.47	<.001	
Respecified					
Psychoticism	←	Big Three	0.83	<.001	0.44
Neuroticism	←	Big Three	0.84	<.001	0.36
Extraversion	←	Big Three	0.94	<.001	0.11
Chance Control	←	Control	0.88	<.001	6.10
Powerful Other	←	Control	0.78	<.001	2.06
Desire for Status	←	Machiavellianism	0.53	<.001	0.61
Desire for Control	←	Machiavellianism	0.69	<.001	0.74
Amorality	←	Machiavellianism	0.54	<.001	0.80
Argumentativeness	←	Education	-0.05	0.12	0.53
Argumentativeness	←	Age	-0.17	<.001	
Argumentativeness	←	Resilience	-0.01	0.64	
Argumentativeness	←	Machiavellianism	0.22	<.001	
Argumentativeness	←	Control	0.00	0.98	
Argumentativeness	←	Big Three	0.44	<.001	

Discussion

This study explored the extent to which demographics, the “Big Three,” cognitive dispositions, and social personal dispositions predict attitudes toward approaching arguments. Demographic variables were mixed in predicting attitudes toward approaching arguments, with age significantly predicting argumentativeness and education having no significant effect. The “Big Three” psychological traits significantly predicted attitudes toward approaching arguments as in previous research. Of the cognitive dispositions examined, resilience had no influence on

attitudes toward approaching arguments. In terms of locus of control (internal and external), counter to what was predicted, it had no effect and was not included in the final model. Regarding the social-personal constructs, Machiavellianism did not operate as hypothesized. Distrust of others fell out of the model, but the other three dimensions were positively associated with argumentativeness as predicted. The results of the current study show that when combined, some previously demonstrated relationships are not statistically significant and/or are statistically significant but inversely, suggesting previous results may have been an artifact of studying variables in isolation.

In terms of the “Big Three,” the results confirm previous research (Blickle, 1995, 1997, Croucher et al., 2024; Lutzman et al., 2014; Levine & McCornack, 1991; McCroskey et al., 2001; Tohver, 2020). The results of the current study add to the literature showing a positive link between individuals who tend to be sociable, active, sensation-seeking, dominant, carefree, assertive, adventurous, and extraverted, as well as cold, unemphatic, aggressive, careless, egocentric, impulsive, cruel, vindictive, and anti-social (psychoticism), and those who tend toward negative emotions, fear or anxiety, irritability and emotional instability (neuroticism) and attitudes toward approaching arguments. Notably, this is only the second study to have found a positive link between neuroticism and attitudes toward approaching arguments. It may be the act of arguing that provides an outlet for individuals high in neuroticism to work through their emotions and irritability.

Like Schullery and Schullery (2003), this research found a negative relationship between attitudes toward approaching arguments and age. However, the educational level was not found to positively affect attitudes toward approaching arguments. It is possible that like the findings of Croucher et al. (2012), the relationship between the level of education and attitudes toward approaching arguments could be moderated by religiosity, leading to a negative relationship. The current study, however, did not measure religiosity. Future research should consider adding religiosity/religiousness as a social-personal disposition.

Previous research has yet to empirically examine the link between attitudes toward approaching arguments and resilience. However, research has shown resilience enhances tolerance for disagreement (Baby, 2016). In the current study, resilience did not have a significant effect on attitudes toward approaching arguments. While previous research suggested resilience may be linked with the ability to argue and attitudes toward approaching arguments (Baby, 2016; Mallahi, 2024) and others suggest the opposite (Buckingham & Brodsky, 2015). The results of this study confirm neither argument. Future work should empirically test this link, as resilience is a critical psychological construct.

Previous research has shown that Machiavellianism has a positive effect on attitudes toward approaching arguments (Malachowski et al., 2013; Mansson & Croucher, 2017; Martin et al., 2006). In the current study, Machiavellianism as a construct also had a positive effect on attitudes toward approaching arguments. Yet, distrust of others failed to reflect Machiavellianism overall. Thus, the results of the current study somewhat support previous research, which has argued that higher Machiavellians tend to see arguments as a way to achieve functional communicative and personal goals (Geanopoulos, 1994; Malachowski et al., 2013; Mansson & Croucher, 2017; Martin et al., 2006) save the tendency to distrust others.

Locus of control was not found to be associated with attitudes toward approaching arguments. While research has suggested a positive relationship between an internal locus of control and attitudes toward approaching arguments (Avtgis & Rancer, 1997; Merz, 2009), the results of the current study did not support this assertion. There are two potential reasons for this. First, this finding could be due to a change in the nature of the disposition (locus of control) itself. Second, the reliability of the Locus of Control Scale was low; the internal control dimension completely fell out of the measure. Future research should continue to explore the reliability and validity of this measure and assess whether a modification of the scale is needed.

Implications, limitations and future research

Building from the arguments of Daly (2011), the present study argues for examining communication traits in conjunction with personality and cognitive dispositions. Despite a vast body of research examining links between single traits, it is critical to recognize people embody multiple traits. For example, research linking attitudes toward approaching arguments with social-personal dispositions, such as Machiavellianism or humor, does not consider an individual's cognitive complexity (cognitive disposition). Notably, the comparability of this data to prior research which did not use the approach items is questionable. As Kotowski et al. (2009) explain, data reported using the original Infante and Rancer (1982) scale is likely riddled with measurement noise as a second false factor from the negatively worded items repeatedly arises when the measure is examined closely through factor analysis. Whereas our findings expand knowledge of attitudes toward approaching arguments, it is questionable whether differences observed here and in some prior research represents measurement error or a change in dispositions.

Moreover, this work expands argumentativeness research through integration of different approaches, demographic, cognitive, personality, and social-personal that provides a more comprehensive understanding of attitudes toward approaching arguments and its predictors. In addition, this more heuristic understanding provides a toolbox to develop more comprehensive theories of attitudes toward approaching arguments and communication. Through better understanding how demographic variables, personality, cognitive dispositions, and social-personal dispositions combine to predict traits, we can better develop our understanding of said traits.

Of note is the substantial measurement error found in this paper. Each measure required re-specification through CFA. Further, the internal sub-measure of locus of control and all Machiavellianism sub-measures had two items that were negatively correlated with one another. It may be time to refresh these measures so a more accurate assessment of these constructs can be conducted and better calibrate their relationships to the approach of arguments assessed.

Another potential limitation of the data collection is social desirability. Researchers have identified social desirability as a concern of self-report measures (Podsakoff & Organ, 1986), specifically in terms of the Argumentativeness Scale (Nicotera, 1996). However, other studies have questioned whether a bias exists (Croucher et al., 2017). Future research should continue to explore the potential for social desirability bias in the Argumentativeness Scale and other measures. Finally, the data is cross-sectional. While cross-sectional data provides a snapshot of participants' behaviors, traits, and emotional state of mind at a point in time, it is unable to conclusively show that one variable causes a change in another variable. Future researchers should explore the use of longitudinal data.

An area for future exploration expands this heuristic scheme to additional communication behaviors. The current study demonstrates how demographics, the "Big Three," cognitive dispositions, and social personal dispositions predict attitudes toward approaching arguments. Future research could replicate this model to explore communication behaviors such as verbal aggressiveness, conflict, and a multitude of other behaviors.

This study is one of the few to explore the extent to which the integration of demographics, the "Big Three," cognitive dispositions, and social personal dispositions heuristically combine to predict attitudes toward approaching arguments. While previous research into attitudes toward approaching arguments has provided valuable insight into attitudes toward approaching arguments, this research examined predictors of attitudes toward approaching arguments largely in isolation. The current study is a step forward in our overall understanding of attitudes toward approaching arguments and the extent to which these variables come together in an integrative approach to predict it.

Notes

1. Deleted items 3, 4, 11, 16.

2. Deleted items 1, 5, 7, 11, 15, 17, 20, 23, 24.
3. Alpha reliability scores are offered in instances in which omega reliability could not be calculated due to a negative relationship in the inter-item correlation matrix.
4. Deleted items 1, 3.
5. Deleted 3, 4, 5, 6, 9, 12, 14, 16.

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