# Tolerance, Humility, and Educational Attainment: Does College Attendance Build Capacity for Confident Pluralism?

Roundtable paper presented for the annual meeting of the
American Educational Research Association (AERA)

April 16, 2023
Chicago, IL

David J. Weerts
Professor, Department of Organizational Leadership, Policy, and Development
University of Minnesota, Twin Cities

Alberto F. Cabrera
Professor Emeritus, University of Maryland- College Park
Scholar-in-Residence, CPRS, American University

Kristin Van Dorn
Doctoral Student, Department of Organizational Leadership, Policy, and Development
University of Minnesota, Twin Cities

We gratefully acknowledge the American Center for Political Leadership (ACPL) at Southeastern University for their support for this project.

During his 2021 Memorial Day remarks, President Joe Biden declared that the "soul of America is animated by the perennial battle between our worst instincts, which we've seen of late, and our better angels. Between 'Me First' and 'We the People.' Between greed and generosity, cruelty and kindness, captivity and freedom." Biden concluded, "empathy is the fuel of democracy" and called on citizens to "see each other not as enemies ... even when we disagree" (Garcia, 2021). Biden's call for civility in public life mirrors recent essays on the diminishing capacity of Americans to debate across deep political differences peacefully and constructively (Dimock & Wike, 2020; Wood, 2021). Indeed, the very notion of being "civil" is contentious, as some have argued that calls for civility ultimately suppress the sincere responses that motivate progressive social change (Newkirk, 2020).

Acknowledging these ongoing tensions, colleges and universities have long claimed a role in preparing a diverse society for civic participation (AAC&U, 2012). The American Association of Colleges and Universities (AAC&U) has even sponsored webinars and showcased college-based initiatives that help college students engage in dialogue across political perspectives. In spite of these efforts to support deliberative democratic practices, little research has been conducted to document the nature of those dispositions and behaviors that contribute to productive democratic reasoning.

Guided by these broader concerns, the purpose of this study is twofold. First, we seek to identify constructs representing dispositions and actions associated with productive democratic deliberation. In doing so, we rely on concept of *confident pluralism* coined by Washington University- St. Louis Law Professor, John Inazu. Confident pluralism refers to the notion that people of widely divergent backgrounds, ideologies, and worldviews can "pursue a common

existence in spite of our deeply held differences" (Inazu, as quoted in Schoenherr, 2015). Inazu (2015) further explains:

> "A confident pluralism seeks to maximize the spaces where dialogue and persuasion can coexist alongside deep and intractable differences about beliefs, commitments, and ways of life. It suggests that we ought to resist coercive efforts aimed at getting people to "fall in line" with the majority. … A confident pluralism presumes a broad capacity to differ meaningfully from state and majoritarian norms (p. 592).

Inazu (2015; 2018) posits that tolerance, humility, and patience are three necessary virtues to promote confident pluralism. Informed by Enlightenment and Christian humanistic traditions, Inazu (2015) asserts that these virtues are essential for productive democratic decision-making in a pluralistic society. He explains, "My argument is that it is often better to tolerate than to protest, better to project humility than certainty, and better to wait patiently for the fruits of persuasion than to force the consequences of coercion (including non-state coercion like economic, social, or psychological pressures on others)" (p. 592).

A second aim of this study is to examine the association between levels of educational attainment and two of Inazu's three key dimensions of confident pluralism—tolerance and humility. Put simply, we seek to understand whether college attendance is associated with the development of these two dispositions and actions that promote confident pluralism. To our knowledge, this study is the first-of-its-kind to examine dispositions and expressions for productive political discourse and its relationship to educational attainment. This study is significant in that it is distinctive from a much larger body of research that focuses the impact of college on later life civic behaviors such as voting, volunteering, and overall community

involvement (see recent studies by Ma & Pender, 2023; Hwang & Kim, 2022; Ahearn, Brand & Zhou, 2022; Mitic, 2022; Doyle & Skinner, 2017; Trostel, 2015). Finally, while there are robust studies connecting tolerance to exposure to ethnic diversity in educational settings, there is no empirical work examining the relationship between educational experiences and tolerating ideological differences. This study aims to fill this gap.

## Literature and Conceptual Framework

To address the two aims of this study, we divide our literature review into two sections. First, we explore the theoretical underpinnings related to Inazu's conception of tolerance. In this section we map ways in which the student development literature informs our understanding about how college attendance promotes tolerant behaviors (e.g., how diversity in college may contribute to tolerance). Second, we follow the same procedure in exploring the conceptual underpinnings of humility. We illustrate its distinction from tolerance and how the higher education literature informs our understanding about the role that college might play in either fostering or inhibiting humility.

**The conceptual basis of tolerance.** Inazu (2015) provides a robust definition of tolerance that goes beyond recognizing the right to express dissenting views. In Inazu's definition, tolerance provides the basis for protecting one's own freedom to express views that are in conflict with opposing belief systems. He explains:

> The tolerance of a confident pluralism means a willingness to accept genuine difference, including profound moral disagreement….Tolerance also means moving beyond the platitudes of free speech to the more difficult questions posed by embodied ways of life.

> The Liberal Egalitarian must tolerate illiberal groups. The Conservative Moralist must tolerate progressive groups (p. 597).

Underlying this conceptualization of tolerance is the notion that it can be assessed by understanding one's willingness to engage with people with different—and even opposing—moral and political perspectives than one's own. A foundational work that provides the basis for our conceptualization of tolerance is the revised tolerance scale developed by Teven, McCroskey, and Richmond (1998). Briefly summarized, Teven et al., (1998) discovered a gap in literature on conflict; studies failed to differentiate between productive disagreement and conflict leading to negative results. Their scale emerged from work across organizational and group communication studies. They revised a scale where researchers tested for tolerance for conflict. After working with multiple groups of students and non-student adults, they theorized that conflict (marked by competition, hostility, and distrust) was not synonymous with disagreement, but rather an escalated state of unsuccessful disagreement. Their revised scale, the Tolerance for Disagreement scale, seeks to map the threshold for disagreement prior to negative result (see McCroskey and Wheeless, 1976).

Since the development of this scale, many studies in this domain have focused on personality traits as being salient in understanding tolerance for disagreement. For example, Nauman (2017) found a positive association between tolerance for disagreement and personal attributes of accommodation, collaboration, and avoidant style of conflict management. Moreover, Malachowski, Martin, and Vallade (2013) concluded that tolerance is a personality trait that predicts the degree to which students positively responded to feedback on their assignments. Similarly, McCroskey and Richmond (1992) found that people with a high

tolerance for disagreement are able to resist conflict more than those with low tolerance for disagreement. Where people score on the tolerance scale seems to matter in the degree to which people can cope in contentious situations. For example, it was found that people across all levels of tolerance for disagreement may agree about what constitutes a contentious or uncivil situation. However, those with high tolerance for disagreement may not be as affected by it (Otto, Lecheler, & Schuck, 2020).

Beyond personality traits, some scholars have focused on how the quality of interpersonal relationships may mediate adverse effects of disagreement. For example, McCroskey and Wheeless (1976) posited that the nature of a relationship (e.g., friendship vs. unfamiliar acquaintance) dictates whether disagreement would escalate into conflict. Similar ideas are prominent within the marriage and family counseling literature. For example, in their recent phenomenological study of successful marriages, Khojasteh et al, (2022) suggest that properties of tolerance include love and respect for spouse and family, understanding of differences, patience, and forgiveness and support of couples' families. The authors concluded that spousal disagreements within successful marriages do not necessarily lead to conflict, but rather, those differences are accepted through a deliberate posture of tolerance. This is mediated by their level of care in the relationship.

**The relationship educational experiences and outcomes and tolerance.** Studies about the association between high quality relationships and tolerance for disagreement are particularly germane as it pertains to scholarship in the field of education. A prominent example is seen in a study by Germen (2014) on the topic of ethnic diversity in middle school classrooms. His study employed survey data from the *International Civic and Citizenship Education Study* and included 100,000+ 13 and 14-year-olds in 38 countries. Across all global contexts he found that

intentionally mixing of ethnically diverse populations in classrooms lead to more tolerance of immigrants among teenagers.

Germen's (2014) findings dovetail with several decades of research in the field of higher education suggesting that educational experiences among diverse peers may promote tolerance. Much of this work can be traced to Chickering and Reisser's (1993) classic work on the seven vectors of identity development. Among their seven vectors, vector four focuses on the developmental process of building mature interpersonal relationships. These theorists suggests that this process requires the ability "…to accept individuals for who they are able, to appreciate and respect differences" (p. 146).

Over the past three decades, higher education literature focused on tolerance and acceptance of diverse backgrounds as an aspirational outcome of higher education. Notably, these studies have almost exclusively defined differences in terms of race and ethnicity rather than ideological or worldview. Nevertheless, this literature is instructive to understanding how being exposed to diverse environments might relate to tolerance for ideological difference. Several studies show how cross-racial interactions positively impact academic and intellectual development, students' social-cognitive skills and personal development, and civic involvement (Hall, Cabrera, Milem, 2011; Taylor, Milem & Coleman, 2016). Research has also explored the relationship between interracial interactions and diversity coursework as it relates to post-graduate outcomes such as volunteering, civic engagement, leadership skills, and recognition of racism (Bowman, Brandenberger, Hill, & Lapsley, 2011; Yamamura & Denson, 2005; Jayakumar, 2008).

Compatible with Chickering and Reisser's (1993) work, these studies suggest that such outcomes are realized through a developmental process. Most notably, Bowman (2012) found

that positive diversity interactions and openness to diversity in the freshman year are significant predictors of positive diversity interactions in the senior year. Similarly, Pascarella et al, (1996) found that a cumulative set of experiences during the college years influence openness to diversity during the college years. These studies lend credibility to the idea that colleges play an important role in moving students through a developmental process toward a posture of tolerance and/or respect for difference.

**The conceptual basis of humility**. Inazu (2015) argues that the concept of humility differs from tolerance in important ways. In fact, he suggests that it represents a higher bar to achieve than tolerance in the pursuit of confident pluralism. Inazu explains:

> The aspiration of humility requires even greater self-reflection and self-discipline than tolerance. Within a confident pluralism, humility leads both the Liberal Egalitarian and the Conservative Moralist to recognize that their own beliefs and intuitions depend upon tradition-dependent values that cannot be empirically proven or fully justified by forms of rationality external to particular traditions (p. 599).

Drawing on Inazu's conception of confident pluralism, we make the distinction that tolerance focuses on attitudes, beliefs and behaviors that are *externally focused* and center our relationship with others, whereas humility focuses on attitudes, beliefs, and mindsets that are *internally focused* and center our understanding and view of ourselves. Specifically, humility varies from the notion of tolerance in that it focuses on recognizing one's own limitations, appreciating other people's perspectives, and avoiding the tendency to confirm prior beliefs when addressing other people's beliefs (Zmigrod, et al., 2019; Porter & Schumann, 2018). Humility requires holding in tension the perspective that one's personal belief may be fallible and that that there are limitations to evidentiary basis of belief (Leary et al., 2017).

The majority of the studies related to humility examine the underlying capacities associated with this construct. In particular, several scholars suggest that humility is associated with how people may be "wired" to a certain style of thinking. For example, Samuelson and Church (2013) posited that analytical and deliberate thinking styles (known as System 2 styles) are associated with intellectual humility and the broader notion of cognitive flexibility. Briefly summarized, cognitive flexibility relates to processes that allow for consideration of ideas that diverge from one's own. Or as Zmigrod, et al., (2013) put it, "the intellectually humble mind is also a flexible mind" (p. 200). Many studies suggest that cognitive flexibility is associated with broader measures of intelligence. For example, Zmigrod, et al. (2019) found that intellectual humility was correlated with heightened cognitive flexibility and measures of intelligence. In addition, De keersmaecker and Roets's (2017) study found that people with lower levels of cognitive ability were less inclined to change their beliefs as compared to those with higher levels after learning that their beliefs were based on false information. Their study supports the premise that intelligence may be correlated with intellectual humility.

Departing from these perspectives is a study by Stanovich and West (1997) who relied on a self-reported measure called "Actively Open-minded Thinking" to address questions related to cognitive flexibility and openness to changing their beliefs. They found that participants who scored highly on this measure were likely to rely on the quality of a particular argument rather than past beliefs, even controlling for cognitive ability. Their findings suggest that the most salient attribute associated with intellectual humility is flexible thinking rather than intelligence.

**Humility and educational attainment.** Previous literature illustrates the challenge of making a causal between educational attainment and humility. In particular, past literature suggests that certain people may be "wired" for humility given their own thinking style which is

independent of their level of education. Simply put, cognitive flexibility may be something that people may be born with. This calls for caution as it relates to our understanding about the relationships among intelligence, humility, and educational attainment. That is, one must consider that advanced levels of educational attainment may simply be a proxy for measures of intelligence—an attribute that has shown to be associated with cognitive flexibility (Zmigrod et al. 2019; De keersmaecker and Roets, 2017). In other words, the educational experience itself may not be associated with promoting humility. Rather, intelligent people who have attributes of cognitive flexibility (associated with intellectual humility) are most likely to seek, be prepared for, and gain access to advanced educational opportunities.

Acknowledging these important findings from previous literature, we consider the various ways in which educational opportunities may provide a platform for exercising or stunting cognitive flexibility. On one hand, studies find that college students' experiences with diversity can challenge previously held beliefs and lead them to reconsider their existing worldviews (Bowman & Brandenberger, 2012; Bowman, 2012; Gurin et al., 2002). In other words, diverse college environments and associated curriculum can build the "muscle" for cognitive flexibility that students might not be exposed to if not attending college. This view is consistent with Chickering and Reisser's (1993) work suggesting that college experiences may support individual growth along a developmental pathway.

On the other hand, various scholars have pointed to concerns that as people attain higher levels of education and accumulate new knowledge, they become prone to cognitive inflexibility. Specifically, confirmation bias is a threat and refers to the idea that "once a person stakes out a belief or a position on an issue, they are more likely to notice, engage with, and recall evidence that supports their position than any evidence that refutes it" (Van Dorn, 2020, p. 124) "As a

result of confirmation bias, people tend to be extremely tough on evidence that refutes their positions, are skeptical of the source and methods to collect data, and have suspicion regarding the motivation behind the reporting of results" (Van Dorn, 2020, p. 124). Discussed in well-known works by Haidt (2012), Kahneman (1998), and Tale (2007); confirmation bias is a particular threat in educational environments that do not cultivate exploration of diverse ontological and epistemological perspectives. This is a concern among many conservatives who suggest that the dominance of liberal perspectives in the academy hinders viewpoint diversity and the ability of students to learn from others with opposing views (Langberg, Quain & Klien, 2016). Simply put, ideological monocultures may be particularly prone to confirmation bias.

Confirmation bias may be further accentuated when new knowledge becomes intertwined with students' identities and associated political ideologies (McAdams, 2013; Van Dorn, 2021). For example, students raised in Evangelical religious traditions are often discouraged from scrutinizing or evaluating their own religious beliefs in relationship to other knowledge systems. Doing so poses a threat to their own deeply rooted religious identities (Boyd, 2103; Noll, 1995). Meanwhile, in the secular academy, theories that view biologically defined social classes as the defining elements of one's identity and source of being (Smith, 2016). In such contexts, students may not be challenged to falsify their own beliefs when those beliefs are deeply intertwined with the way that they biologically define themselves (race, ethnicity, gender). In both religious and secular progressive contexts, students may be emboldened to reject claims that contest their own lived experiences. Van Dorn (2020) discusses pedagogies that may help build muscle for significant flexibility that is associated with humility.

> Colleges must create experiences where students engage in activities that both release them of the "self" and help "define" the self. These activities include engaging students'

> minds in the full collection and exploration of evidence, assembling arguments, weighting those arguments against one another based on values, and negotiating those weights with others who perceive things differently (p. 120.)

In summary, past literature suggests that people may have innate thinking styles that may be more or less flexible. Educational environments play an important role in either nurturing or hindering the capacity of students to practice flexible thinking styles and mindsets. Confirmation bias is a threat within monocultures that may wittingly or unwittingly engage with some evidence while rejecting others. Educational experiences that provide opportunities for students to build dexterity in their interaction with opposing belief systems are ones that may build the muscle for humility.

**The relationship between tolerance and humility.** Our review of literature illustrates that the two concepts of tolerance and humility are distinct but deeply interrelated concepts. Tolerance focuses on attitudes, beliefs and subsequent actions that are *externally focused* and center our relationship with others. Meanwhile, humility focuses on attitudes, beliefs, and subsequent actions that are *internally focused* and center on our view and understanding of ourselves. Humility underscores mindsets and their corresponding attitudes (how we engage with our own belief systems) whereas tolerance underscores behaviors (how we engage with others).

Together, these concepts may be related to a broader family of constructs associated with productive behavior with groups or individuals. For example, studies have linked intellectual humility to openness—a concept closely resembling tolerance (see McElroy et al., 2014; Porter & Schumann, 2018). Similarly, Leary et al. (2017) found that intellectual humility was positively correlated with self-reported openness to alternative ideas and values, and negatively

correlated with dogmatism and intolerance of ambiguity. In a study of student perceptions of group work, Myers et al (2009) found that positive perspectives about group work were associated with students' tolerance for disagreement and cognitive flexibility (a style of thinking strongly associated with humility).

What remains murky is the relationship between these two interrelated concepts and the role of educational attainment in producing behaviors that support productive interactions across diverse groups or individuals. We theorize that these interrelated but distinctive concepts of humility and tolerance may work hand- in- hand. Specifically, under the most favorable conditions, educational experiences may nurture students' humility by introducing them to experiences that exercise their own capacity for cognitive flexibility. This process is akin to a runner who completes hill training in order to strengthen their muscles for a race. Practicing cognitive flexibility may promote new attitudes, beliefs, and mindsets that support postures, behaviors, and actions that are tolerant. This conceptualization is consistent with prior literature suggesting that the formation of these capacities is part of a developmental process (Chickering & Reisser, 1993; Bowman, 2012; Pascarella et al, 1996). While exploring this sequential path is beyond the scope of this study, we offer this idea as a way to make sense of the relationships between these concepts. In the next section, we outline our methodology to assess the independence of tolerance and humility and their relationship to varying degrees of educational attainment.

## Methodology

**Construct definition and scales**. As previously discussed, Inazu (2015) defined confident pluralism as willingness to engage with individuals holding opposite political

perspectives, and even with those espousing moral principles contradictory to one's own. He further argued that confident pluralism means acknowledging that political beliefs are culturally driven, subject to personal beliefs that are often tradition bound and difficult to justify. Accordingly, our interpretation of Inazu's confident pluralism is that it embraces two interrelated concepts: 1) humility in political discourse, and 2) tolerance for different political views. We adapted items from Porter and Shuman (2017) scales of intellectual humility and openness to opposing views, and from Zmigrod et al. 's (2019) scale of intellectual humility to appraise the first two components of Inazu's confident pluralism. To gauge tolerance for political views, we adapted items from the openness to diversity scale (Pascarella et al., 1996).

As indicators of humility in political discourse, we included items capturing self-reflections when interacting with people with opposite political views. Those embraced acknowledging that personal political views are culturally based and relative, willingness to accept one's ignorance about divergent political perspectives, being open to new information that could change one's mind on a political issue, and even willingness to change one's mind on a political perspective (4 items). We also postulated that humility for political discourse would call for ideological empathy as manifested by being interested in people holding opposite political perspectives and being upset when witnessing criticism towards them (4 items). While tolerance has been traditionally defined as "... putting up with something you do not like" (Vogt, 1997, p. 1), Inazu (2015, 2016) goes beyond this passive approach by stressing empathy for and willingness to engage with political pluralism. Inazu's perspective of confident pluralism is similar to Pascarella el al's (1996) concept of 'openness to diversity'', whose allied scale reflects Chickering's vector of developing mature interpersonal relationships with diverse individuals

(Cabrera et al., 2022). Accordingly, our five tolerance items gauge different aspects related to interacting with people spousing opposite political views.

**Pilot study.** The data for this study come from the *National Survey of American Civic Health* which was launched at Southeastern University in 2021. The scales and items that were tested on a national sample of 1,763 subjects collected in April 2020 by Dynata, an international marketing research firm that specializes in assembling customized survey panels. Dynata constructed panels for the National Survey based on the U.S. Census statistics by age, race, ethnicity, gender, educational attainment, and employment status. After eliminating "speeders", individuals who cursorily perused over the survey, we ended up with an effective sample of 1,610 cases. Our main purpose in conducting the pilot study was to examine the psychometric properties of the different items and scales to be included in the final survey. In crafting the questionnaire, we followed Tourangeau, Rips and Rasinski's (2000) precepts of writing items that attend to the basic cognition stages individuals undergo when answering surveys; namely, understanding the concept embedded into the item, and being able to recall events associated with the concept it addresses.

We followed Sharkness' (2014) two-step strategy in examining the psychometric properties of our 15 indicators of confident pluralism. In doing so, we relied on both classical (Cronbach, 1951) and modern measurement theories (Raykov & Marcoulides, 2018) in appraising the reliability of the items. We first conducted an exploratory factor analysis (EFA) to confirm the presence of three underscoring factors. We eliminated those items with substantial cross loadings, and those with loadings below 0.5 (Brown, 2015). This selection criterion led to the exclusion of the factor ideological empathy, and its 4 constituent items, as well as 2 tolerance items, leaving 9 items to gauge tolerance for different political views and humility in political

discourse. The alpha reliability of humility in political discourse was 0.81, while the one for tolerance for different political views was 0.89 (see table 1). Second, we examined the information and discrimination properties of each of the remaining 9 items using the graded response model (Samejima, 1969) of item response theory (IRT). As reported in table 1, all nine 9 items display discrimination indexes well above 1.7 (Baker, 2001; Sharkness & DeAngelo, 2011). Each of those nine items also boasts high information functions[1] (Raykov & Marcoulides, 2018), while displaying item difficulty values covering both positive and negative ranges in the domain of the trait (Acock, 2022; Raykov & Marcoulides, 2018). We relied on IRT's test information functions (TIF)[2] to document the scales' levels of accuracy in appraising their corresponding construct. Figure 1 reports the level of information and precision if using the 4 humility items to form a scale. The scale produces high levels of information with corresponding high levels of accuracy within -2 and +1.5 standard deviation units, covering about 91% of the population. As shown in figure 2, the tolerance scale yields high levels of accurate information within plus or minus two standard deviations, or for about 95% of the population.

**Final sample.** Informed by our pilot study, we revised the National Survey to include items with valid loadings and acceptable item response attributes to address several domains of civic health, being confident pluralism one of them, during fall 2020 and early spring 2021. Subsequently, Dynata collected a national representative sample of individuals matching the US census related to age, ethnicity, gender, and educational attainment through the end of spring and early fall of 2021. The sampling strategy also called to match the unemployment rate in the US

[1] Items' information functions are available upon request.

[2] Although widely used, Cronbach's alpha reliability index may not be the best indicator of the internal consistency of a scale (DeSante, 2011). It unrealistically assumes that the reliability of the scale is constant across the domain of the construct (Acock, 2022; Sharkness, 2014; Raykov & Marcoulides, 2018).

during this period of time. At the end of August 2021, Dynata collected nearly five thousand cases (4,990). The sampling was conducted twice to replace 932 "speeders," or individuals who spent five minutes or less completing the survey.

Overall, our sample overestimates the proportion of college educated individuals as well as the unemployment rate (see table 2). According to the National Center for Education Statistics, 48% of the US population held a postsecondary degree in 2019. Our sample consists of 70% college educated individuals, overestimating the national figure by 22%. Most of this overestimating has to do with estimates of graduate education. Our sample overestimates the population with graduate education by 12 percentage points (see table 2). As of June 2021, the overall US unemployment rate was 5.9% (Statista, 2021). Our sample overestimates this unemployment rate by 3.1% (9%).

From a demographic perspective, the sample closely resembles the US population in terms of gender. However, it slightly underestimates the proportion of the population aged 35 or older, while slightly overestimating the population aged between 18 to 34. In terms of ethnicity, our sample overestimates the African American population by 7 percentage points. The other ethnic groups are fairly close to the population estimates (see table 2).

**Analytical methods**. To address the first purpose of our study, we conducted two sets of factor analyses to understand the underlying structure of two components of confident pluralism: tolerance and humility. As recommended in the literature (Bandalos & Finney, 2010) we first conducted an exploratory factor analysis (EFA) of the 9 confident pluralism items. We opted for EFA for two reasons. First, EFA allowed us to examine our hypothesis that confident pluralism underscores two factors. And EFA helped us to single out the most representative items to be included in our confirmatory factor analyses. We relied on principal component methods with

varimax rotation, which assumes the factors are orthogonal to one another (Field, Miles & Field, 2012; Kabacoff, 2022).

Once EFA informed us about the number of factors and their most representative items, we relied on CFA to rigorously confirm our hypothesis that confident pluralism consists of two factors. We considered items to be representative of the factor if they displayed a loading of 0.5 or higher, meaning the corresponding construct accounts for at least 25% of the variance in the item (Browne, 2015; Kline, 2016). CFA also allowed us to examine the degree of correlation between humility in political discourse and tolerance for different political views. Correlations among the factors of 0.7 or higher question the hypothesis that the two factors are independent of one another (Brown, 2015).

We examined several goodness of fit indexes to appraise the viability of our model[3]. The comparative fit index (CFI) and the Tucker Lewis index (TLI) estimate the extent to which a model provides an appropriate fit to the data relative to the independence or null model (Brown, 2015). A CFI of 0.90, for instance, indicates that the hypothesized model is 90% better than the independence model (Kline, 2016). We regarded CFI and TLI values equal or greater than 0.95 as signifying a model fit (Brown, 2015). The root mean square residual (RMSEA) is an absolute fit index (Hu & Bentler, 1999). RMSEA values less than 0.05 are deemed as good, values between 0.05 and 0.08 are acceptable, values between 0.08 and 0.10 are marginal, and values greater than 0.10 signify a rejectable model (Kim et al., 2016). We also estimated 90% confidence intervals for the RMSEA, rejecting the model if the RMSEA values substantially

[3] Hancock (2022) and others (e.g., Newsom, 2020) caution against considering cutoffs of goodness of fit indicators as "written in stone". Hu and Bentler (1999) acknowledge that their own fit index cutoffs rest on data simulations whose boundaries were set by specific assumptions about sampling distributions and sampling sizes. It is also common to find alternative cutoff scores for the same index in the structural equation modeling literature (e.g., Byrne, 2012; Brown, 2015; Cho et al., 2020; Hu & Bentler, 1999; Kim et al., 2016; Kline, 2016; Wang & Wang, 2020).

exceeded the 0.10 threshold (Brown, 2015; Byrne, 2013). The SRMR is the standardized version of the RMSEA. It appraises the difference between the observed and predicted correlations by the model under consideration. A zero value means that the model predicted the observed correlations. Kline (2016) suggests that values greater than 0.10 may indicate poor fit. We also report chi-square values while noting the sensitivity of this index to sample sizes. In general, small sample sizes yield small chi-squares while the opposite is true with large samples (Brown, 2015; Kline, 2016).

To address the second purpose of our study, we examined the potential association between educational attainment and our two measures of confident pluralism. To do so we relied on ANOVA followed by Bonferroni[4] tests among means in the case of the tolerance for political differences scale. Regarding the humility in political discourse scale, we used the Welch's *F*-ratio followed by Games-Howell post hoc procedure to correct for heteroskedasticity (Delacre et al., 2019; Field et al., 2012; Frost, 2022). Our analyses are based on Stata 17, Mplus 8.7, and several *R* packages. We note, however, that our results should be interpreted as an exploratory portrayal of differences in confidence pluralism among the five educational groups under examination. ANOVA and post hoc comparison of means are most effective when the samples are balanced, a condition that is not met in our data. The sample of individuals with an associate degree is the smallest (n = 616) among the five educational groups under study.

[4] Castañeda, Levine, and Dunham (1993) note that the Bonferroni correction reduces the possibility of finding significant differences between means by chance, also known as type I error.

## Results

**Exploratory factor analysis.** We examined the underlying factor structure (EFA) associated with the 9 indicators of confidence pluralism using principal component analysis with varimax rotation (see table 3). Prior to conducting EFA, we studied several indicators to judge the adequacy of the correlation matrix for the principal components method. The Bartlett's[5] test of sphericity is significant ($\chi 2 = 23{,}100$, $df = 36$, $p < .05$) indicating the correlations are large enough to perform exploratory factor analyses. Moreover, the Kaiser-Meyer-Olkin (KMO) verified the adequacy of the sample. The KMO = 0.90 falls in the superb range (Field, Miles & Field, 2012), while the KMO values for each of the 9 items are above the acceptable value of 0.77 (0.87 - 0.92). No multicollinearity among the 9 items was detected; the determinant of the correlation matrix (0.0097) is greater than 0.00001.

The EFA replicated the pilot study indicating that confidence pluralism underscores two factors (see table 3). Altogether, these two factors account for nearly 70% of the correlation among the items. The first factor grouped together items indexing being open minded to divergent political issues. Each of its 4 items displays loadings well above the 0.5 threshold (Brown, 2015). We labeled this factor humility in political discourse. The alpha reliability associated with this factor is also high (0.83). The second factor grouped together items whose stem reflects willingness to engage with people holding opposite political perspectives than one's own. Thus, we labeled it tolerance for different political views. All of its five items have high loadings ranging from 0.78 and 0.84. The alpha reliability of this factor is 0.89. Altogether these two factors account for a substantial amount of the variance in each item. The common variance accounted for by the two factors ranges from 62% to 73% (see last column in table 3). In sum,

[5] Under Bartlett's test the null hypothesis is that the variables are not correlated among themselves. In other words, the correlation matrix resembles an identity matrix (Field et al., 2012).

each of these two factors offers a unique insight on Inazu's underlying constructs of confident pluralism.

**Confirmatory factor analysis.** EFA is exploratory in nature. It can inform but not confirm the true nature of the structure of the constructs (Bandalos & Finney, 2019; Geiser, 2013). Moreover, EFA imposes the unrealistic assumption that the factors are orthogonal to each other (Brown, 2015; Kline, 2016). To overcome these EFA limitations, we decided to rely on confirmatory factor analyses to rigorously examine whether humility in political discourse and tolerance for political difference constitute two distinct manifestations of confident pluralism.

Figure 3 documents the CFA results. The CFA model has an acceptable RMSEA value of 0.059 (Hu & Bentler; 1999; Kim et al., 2016); moreover, the RMSEA 90% confidence interval ($CI_{90\%}$ = [0.055, 0.064]) is well below the 0.10 threshold (Byrne, 2006). With the sole exception of the chi-square ($\chi 2$ = 463.9; df = 25, $p < .01$), all remaining fit indices (e.g., CFI = 0.981, TLI = 0.973, SRMR = 0.033) display acceptable values (Brown, 2015). In short, the bulk of the fit indicators converged in supporting the model as a viable representation of humility in political discourse and tolerance for political difference.

As shown in figure 3, humility in political discourse and tolerance for political difference constructs are appropriately appraised by their corresponding items. All items have loadings in excess of 0.5. Tolerance is characterized the most by willingness to engage with people of different political beliefs ($\lambda = 0.84$). Of the two constructs, this factor is appraised with the lowest amount of error. It boasts a composite reliability coefficient (Raykov, 1999) of 0.89. Humility is defined the most by respect towards people holding opposite political views. The reliability of this factor is high (CR = 0.83). It is also important to note humility and tolerance are not independent constructs of confident pluralism. They are positively highly correlated (r = 0.58). In

other words, humility and tolerance are two interrelated components of confident pluralism while offering each a unique insight about it.

**ANOVA results.** Prior to conducting ANOVA, we examined the extent to which our two scales met the conditions of normality and homogeneity of variances (Field et al., 2012; Kabakoff, 2022). Q-Q plots revealed that the bulk of standardized residuals for humility and tolerance followed a linear trend with the exception of the extreme tails of the distributions for both scales (within plus and minus two standard deviation units). In view of those extreme values, we tested for outliers. We found no studentized residual with a significant Bonferroni *p*-value at either of the two scales. The condition of homogeneity of variances across groups was met in the case of the tolerance scale (Bartlett's $K^2 = 5.870$, $df = 4$, $p = 0.209$), but rejected for the humility scale (Bartlett's $K^2 = 92.341$, $df = 4$, $p < 0.01$). Consequently, we relied on the Welch's ANOVA test (Welch, 1951), which corrects for heteroscedasticity, in estimating the *F*-test for differences in humility scores among educational groups (Delacre et al., 2019; Frost, 2022)[6]. Next, we used the Bonferroni post hoc test of means in the case of the tolerance scale. In the case of the humility scale, we relied on the Games-Howell post hoc procedure[7] (Games & Howell, 1976). The Games-Hollege test corrects for heterogeneity of variances, and unequal sample sizes in conducting post hoc mean test comparisons (Sauder & DeMars, 2019).

[6] Given the extreme tails in both scale distributions, we decided to verify our two *F*-tests using robust procedures to departures of normality (Wilcox, 2022). We opted for the trimmed method, which discards 20% of the upper and lower ends of the distributions. We relied on the **t1way** function of the WRS2 R package with 2,000 bootstrap samples, which allows for heteroscedasticity. Mair and Wilcox (2019) note that a 20% trimmed mean approach "… achieves nearly the same amount of power as the mean when sampling from a normal distribution, and when there are outliers…" (p. 465). The robust *F*-test was significant for both humility ( $F(4, 1{,}345.2) = 21.5$; $p < .01$) and tolerance ($F(4, 1{,}300.7) = 31.8$; $p < .01$).

[7] Test mean differences in humility among educational groups was performed using the **games_howell( )** R function in https://rpubs.com/aaronsc32/games-howell-test.

Table 4 reports the means of humility and tolerance across educational levels, their corresponding standard deviations, and their *F*-tests. The last column reports the significant mean comparisons across educational levels. ANOVA test results indicate that education is associated with tolerance for political difference ($F(4, 4985 = 25.91, p < .01$), and humility in political discourse (Welch's $F(4, 2196.7) = 25.61, p < .01$). Post hoc mean comparison tests suggest a linear trend between education and our two components of confidence in pluralism. In general, individuals with postsecondary education display significantly higher levels of confidence in pluralism next to individuals with high school education or less (see last column in table 4). The educational advantage is pronounced among individuals with graduate education and baccalaureate degrees (see figures 4 and 5). The advanced degree holder is, on average, 14.4 and 13.3 percentile units higher in tolerance and humility than the average high school graduate[8]. An average baccalaureate graduate is 13[9] percentile units more tolerant and humbler than the average high school graduate.

**Discussion**

Our study contributes significantly to the broad body of literature on educating citizens for participation in a diverse democracy. Among the most important findings, our study supports Inazu's proposition that tolerance and humility are independent constructs that comprise confident pluralism. Relying on exploratory and confirmatory factor analysis, we find reliable

[8] These percentiles point differences are associated with the effect sizes of 0.37 and 0.30 corresponding to tolerance and humility, respectively. Cohen (1988) regarded a size effect (*d*) of 0.2 to be small, while qualifying an effect size of 0.5 to be medium. Our effect sizes fall between these two thresholds.

[9] Both tolerance and humility displayed an effect size of .32 regarding the comparison between a BA holder and a high school graduate.

indicators that adhere to both constructs of tolerance of political difference and humility in political discourse. The items were shown to have strong loading for each distinctive construct. Our results comport with past studies that treat tolerance and cognitive flexibility (associated with humility) as independent constructs (see Myers et al., 2009).

Also adhering to previous literature is our finding that the correlation between humility and tolerance was strong and positive ($r = 0.58$). Several studies have shown the relationship between these concepts (McElroy et al., 2014; Porter & Schumann, 2018; Leary et al., 2017) and our study is in line with these previous investigations. Put simply, we find that humility and tolerance are two interrelated components of confident pluralism. Our work supports the validity of Inazu's concepts within a nationally representative sample.

Second, our study is the first of its kind to find a positive association between dimensions of confident pluralism and educational attainment. Our study revealed the nuanced ways in which educational attainment relates to tolerance for political disagreement and humility in political discourse. As seen in Figure 4, tolerance scores are tightly banded together at three levels of attainment: 1) high school degree or less, 2) associates degree/some college, and; 3) bachelor's degree/graduate and professional. This figure reveals that there are significant leaps in tolerance scores across these three levels. This finding supports past research suggesting that college environments may provide important avenues for promoting tolerance (e.g., Bowman, 2012; Pascarella et al, 1996). It also aligns with Chickering and Reisser's (1993) developmental framework which theorizes that college may support the nurturing of mature relationships and appreciation and/or respect for differences. As we found no significant gains in tolerance after earning a bachelor's degree, we suggest that the traditional college years may be the most formative developmental period in gaining tolerance for political difference.

Figure 5 tells a similar but slightly nuanced story in the domain of humility. Specifically, humility scores are tightly banded together in three attainment levels: 1) high school degree or less, 2) associate's degree, and; 3) some college, bachelor's degree/graduate and professional. Unlike the tolerance scores, we find that the most significant leaps in humility scores are not found at the level of the bachelor's degree; but rather, they are most prevalent at the associate's degree and "some college" level. In other words, long term exposure to college experiences and/or curriculum is not associated with higher levels of humility in political discourse. To make sense of this finding, we consult past studies showing that cognitive flexibility and intelligence are tightly bound to a person's thinking style (Samuelson & Church, 2013), and overall level of intelligence (Zimgrod et al.; 2019; De keersmaecker & Roets, 2017). Relying on this literature, our results suggest a "sorting of people" who are mostly likely to further their education beyond high school (those who score higher on tests of intelligence and have attributes of cognitive flexibility). Meanwhile, tolerance may be cultivated over a long period of exposure to difference which may result in greater gains (humility being less malleable than tolerance). Our interpretation of these relationships require additional investigation.

**Limitations and Future Research**

We offer several points of caution that prompt new lines of research in this area. First, we note that questions about educational attainment have important temporal considerations that are difficult to disentangle. Specifically, we acknowledge that levels of educational attainment are also inextricably linked to age and life stage. Maturity and life experiences are not captured in this study and must be considered in future research. Thus, we suggest that future studies that examine differences in humility and tolerance scores should control for age, and life stage, and perhaps other experiences. Specifically, one study might investigate people in similar age

cohorts and examine whether their levels of tolerance and humility varied by their level of education and generational cohort (e.g., life experience). Another study might investigate how educational attainment and military service compare as it relates to humility and tolerance. These studies would provide more sophisticated investigations about how generational and life experiences may intertwine with educational attainment in ways that best predict tolerance and humility.

Second, the findings of our study provide very little context to understand how campus environments relate to higher or lower scores of tolerance and humility. In particular, our findings reveal that two-year colleges deserve more investigation as places where there are most gains in humility. Some important questions remain. For example, what is it about two-year college students and/or two-year college environments that may be associated with gains in humility? Similarly, how do we understand the association of "some college" as being on par with graduate and professional education in their levels of humility scores? To what degree might a more granular investigation of institutional type (e.g., regional public university vs. selective private college) reveal more information about institutional type as it relates to humility and tolerance? These are all important questions that are ripe for future investigation.

Third, we propose that future studies investigate the relationship between tolerance and humility. In the current study, we have proposed that humility may be a precursor to tolerance. That is, humility represents a thinking style that is associated with intelligence. Those who score higher on intelligence may be more likely to attend college and experience the developmental benefits associated with exposure to diversity (e.g., tolerance). Future studies could investigate a causal path between these two concepts.

**Conclusions and Implications for Policy and Practice**

Our study cautiously supports higher education advocates who maintain that colleges have an important place in our society for supporting democratic consensus-building or "confident pluralism" as coined by Inazu (2015). In her 2017 blog entry for the American Council of Education (ACE), Dr. Lorelle Espinosa declared, "Higher education can lead the way to a more tolerant society; in fact, it may very well be the number one societal good higher education has to offer" (Espinoza, 2017). In drawing on past work in the field of higher education, Espinosa made the link between the diversity and tolerance, suggesting that diverse environments and classroom experiences could yield a more tolerant citizenry. She continues:

> Of all the communities in the country, tolerance is perhaps most within the reach of colleges and universities. Not just because they are microcosms and perhaps thus a bit more manageable, but because they first and foremost provide an educational environment. The foundations of tolerance run deep in the college classroom, where students learn and confront new ideas, issues, and experiences at times vastly different than their own.

Our study cautiously supports Espinosa's (2017) view while acknowledging ongoing concerns about liberal bias in the academy. Confident pluralism can only take hold in environments where there is robust debate and consideration of a range of viewpoints. We suggest that pedagogies that incorporate community-engaged learning can promote understanding and tolerance across diverse community knowledge systems (e.g., Indigenous thought, religious traditions, etc.) We suggest that civic educators broaden their attention to exploring the underlying ontological and epistemological bases for which ideological differences

get their meaning. Doing so may support Espinosa's claim about the role of higher education in promoting a more tolerant society.

In closing, we suggest that Inazu's (2015) framework proved valuable to articulating tolerance and humility as the key elements that underscore confidence and pluralism. Our study about the relationship between educational attainment and these dimensions support the idea that campus environments (exposure to diversity, etc.) are places that can support tolerance for political difference. Our work extends past studies in higher education that in have almost exclusively defined difference in terms of race and ethnicity. We suggest that future researchers could employ our scales to understand the range of life experiences and backgrounds associated with tolerance and humility. We end by accentuating the importance of this work as articulated by Inazu (2015) who declared, "we can and must live with deep and irresolvable differences in our beliefs, values, identities, and groups. We can do so through "[a] confident pluralism that conduces to civil peace and advances democratic consensus-building" (p. 589).

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Table 1. Psychometric properties of confident pluralism items

| *Factor*/item | Loading | Item Response Theory | | |
|---|---|---|---|---|
| | | Item Discrimination | SE | Item Difficulty Range |
| *Humility in political discourse (alpha = 0.81)* | | | | |
| 1. I am willing to admit it if I don't know something related to a political issue that is important to me | 0.757 | 2.23 | 0.118 | -2.53 to 0.62 |
| 2. I am open to new information on a topic that might change my mind on a political issue | 0.727 | 2.80 | 0.163 | -2.19 to 0.79 |
| 3. I can respect other political viewpoints without losing confidence in my own | 0.765 | 2.25 | 0.121 | -2.37 to 0.76 |
| 4. There are lots of ways to look at a political issue | 0.679 | 1.98 | 0.104 | -1.94 to 0.80 |
| *Tolerance for different political views (alpha = 0.89)* | | | | |
| 1. I enjoy having meaningful discussions with people with different political perspectives than my own | 0.733 | 2.88 | 0.129 | -1.57 to 1.02 |
| 2. Engaging with people who have different political beliefs than I do is very important to me | 0.784 | 3.20 | 0.147 | -1.52 to 1.21 |
| 3. I prefer being in groups where there are a range of political beliefs and perspectives | 0.761 | 2.92 | 0.132 | -1.77 to. 1.24 |
| 4. I welcome the chance to talk with people who I think will disagree with me on politics | 0.786 | 3.08 | 0.141 | -1.43 to. 1.11 |
| 5. I would prefer to work collaboratively with people who disagree with me politically rather than working independently | 0.751 | 2.21 | 0.980 | -1.72 to. 1.33 |

Baker (2001) characterizes discrimination indexes greater than 1.7 to be very high. The range for high is between 1.35 and 1.79. Moderate has the range of 0.65 to 1.34.

| Table 2. Sample representativeness | | | |
|---|---|---|---|
| | 2020 Census | Sample | Difference |
| Gender | | | |
| Male | 48% | 49% | 1% |
| Female | 52% | 50% | -2% |
| Age | | | |
| 18-24 | 11% | 14% | 3% |
| 25-34 | 18% | 21% | 3% |
| 35-44 | 17% | 19% | 2% |
| 45-54 | 16% | 14% | -2% |
| 55-64 | 17% | 16% | -1% |
| 65 or more | 21% | 17% | -4% |
| Ethnicity | | | |
| White | 63% | 63% | - |
| Hispanic/Latinx | 16% | 14% | -2% |
| African American | 12% | 19% | 7% |
| Asian American | 6% | 8% | 2% |
| American Indian, Hawaiian | 3% | 5% | 2% |
| Education | | | |
| Some HS or less | 11% | 7% | -4% |
| HS graduate | 27% | 23% | -4% |
| Some college | 22% | 18% | -4% |
| Associate Degree | 8% | 11% | 3% |
| Four-year degree | 20% | 18% | -2% |
| Some graduate education/ Graduate degree | 11% | 23% | 12% |
| Source: Dynata's report of October 6, 2021 | | | |

Table 3. Exploratory factor analysis of humility and tolerance (Varimax rotation)

| Items | Humility in political discourse | Tolerance of different political views | Communality |
|---|---|---|---|
| Acknowledge own ignorance on a political issue | **0.81** | 0.05 | 0.65 |
| Open to new information | **0.80** | 0.26 | 0.71 |
| Respect for other political viewpoints | **0.82** | 0.22 | 0.72 |
| Acknowledge different political views | **0.73** | 0.30 | 0.62 |
| Enjoy meaningful discussions with people with different political perspectives | 0.31 | **0.78** | 0.71 |
| Engaging with people who have different political beliefs than I do is very important to me | 0.20 | **0.84** | 0.75 |
| Prefer groups with a a range of political beliefs & perspectives | 0.25 | **0.80** | 0.71 |
| Welcome chance to talk with people who disagree with on politics | 0.17 | **0.84** | 0.73 |
| Work collaboratively with people who disagree with in political issues | 0.09 | **0.78** | 0.62 |
| *Eigenvalues* | 2.73 | 3.49 | |
| *% of variance* | 30.0 | 39.0 | |
| *Reliability* $\alpha$ | 0.83 | 0.89 | |

TABLE 4. Differences in humility in political discourse and tolerance for different political views across educational levels

| Variable | HS or less (HS) n= 1,577 | | Associate Degree (AA) n = 616 | | Some College (SC) n = 1,012 | | Baccalaureate D. (BA) n = 899 | | Grad Educ (GE) n = 886 | | *F*-test | *p*-value | Significant Mean Comparisons (Bonferroni: Tolerance; Games-Howell : Humility) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mean | Std. | Mean | Std. | Mean | Std. | Mean | Std. | Mean | Std. | | | |
| Tolerance | 16.184 | 4.752 | 16.963 | 4.540 | 17.049 | 4.541 | 17.697 | 4.505 | 17.888 | 4.482 | 25.91 | 0.01 | AA > HS**; SC > HS**; BA > HS**; BA > AA*; BA >SC*; GE > HS**; GE > SC**; GE >AA* |
| Humility | 15.419 | 3.499 | 15.803 | 3.256 | 16.244 | 3.001 | 16.451 | 2.693 | 16.542 | 2.925 | 25.61[10] | 0.01 | SC > HS**; SC > AA*; BA > HS**; BA > AA**; GE > HS**; GE > AA** |

Notes: * $p < .05$; ** $p < .01$

[10] Welch's *F*-test correction for unequal variances (Delacre et al., 2019).

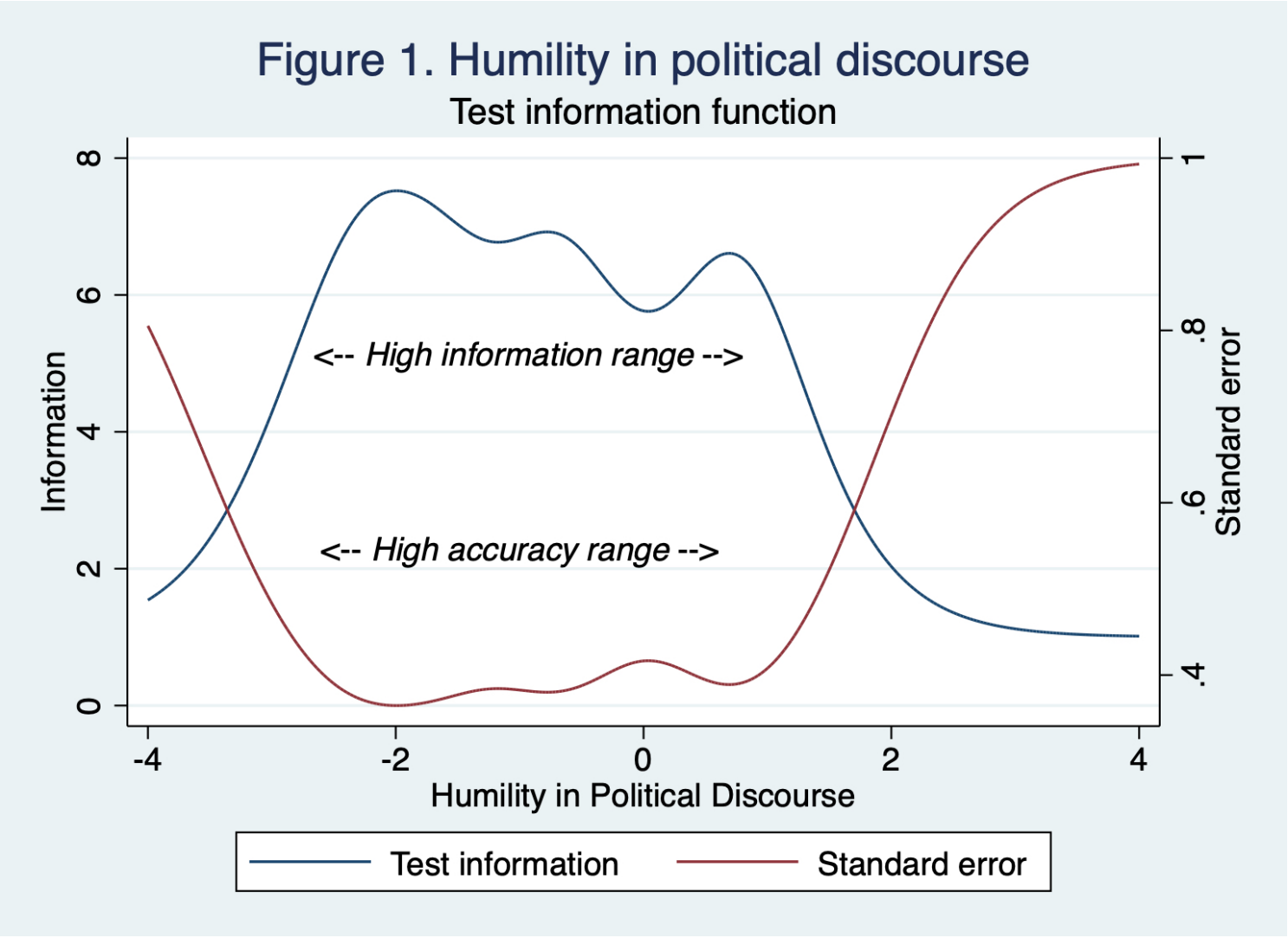


Figure 1. Humility in political discourse
Test information function
Information
Standard error
0
2
4
6
8
.4
.6
.8
1
<-- High information range -->
<-- High accuracy range -->
-4
-2
0
2
4
Humility in Political Discourse
Test information
Standard error

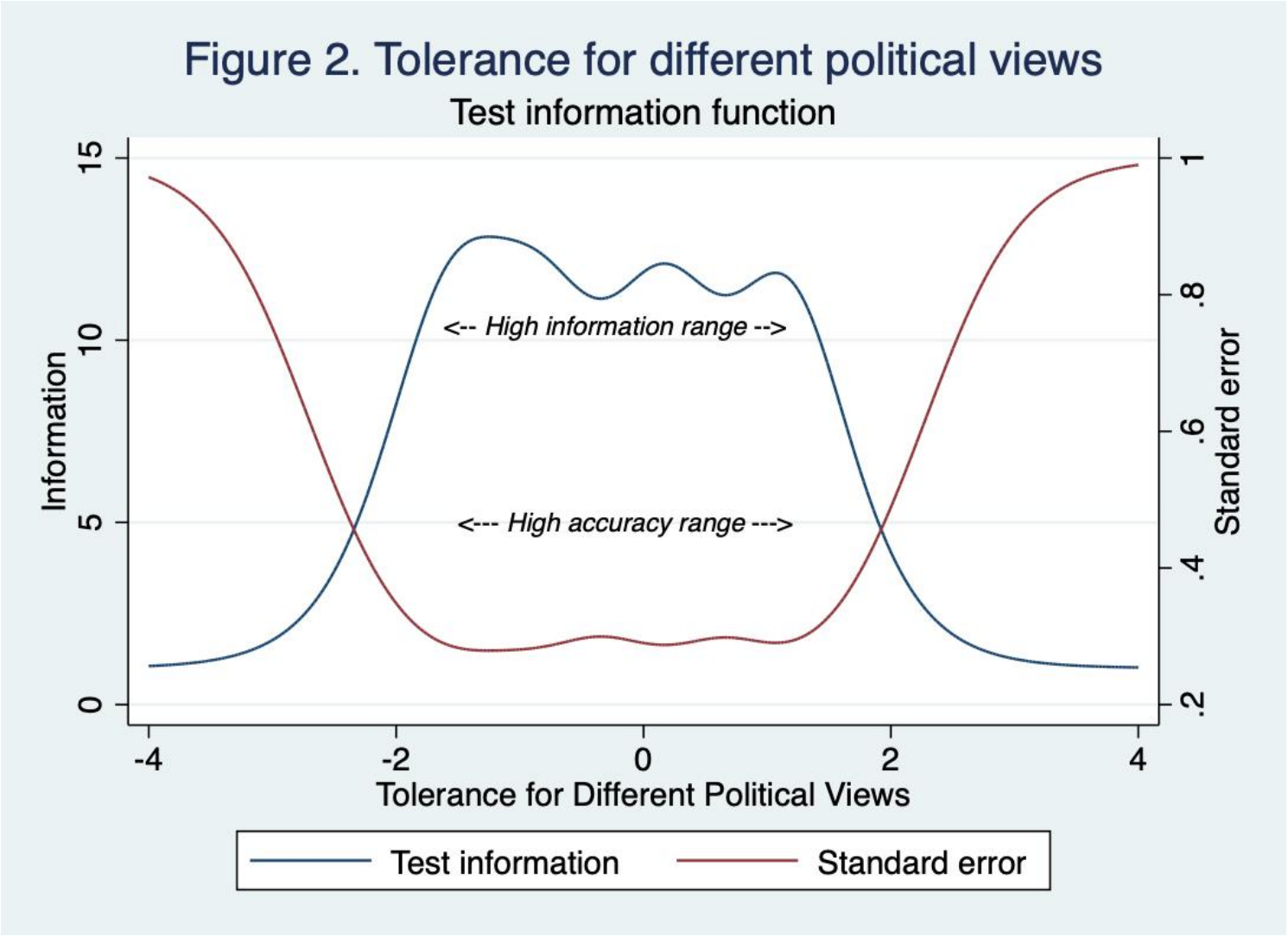
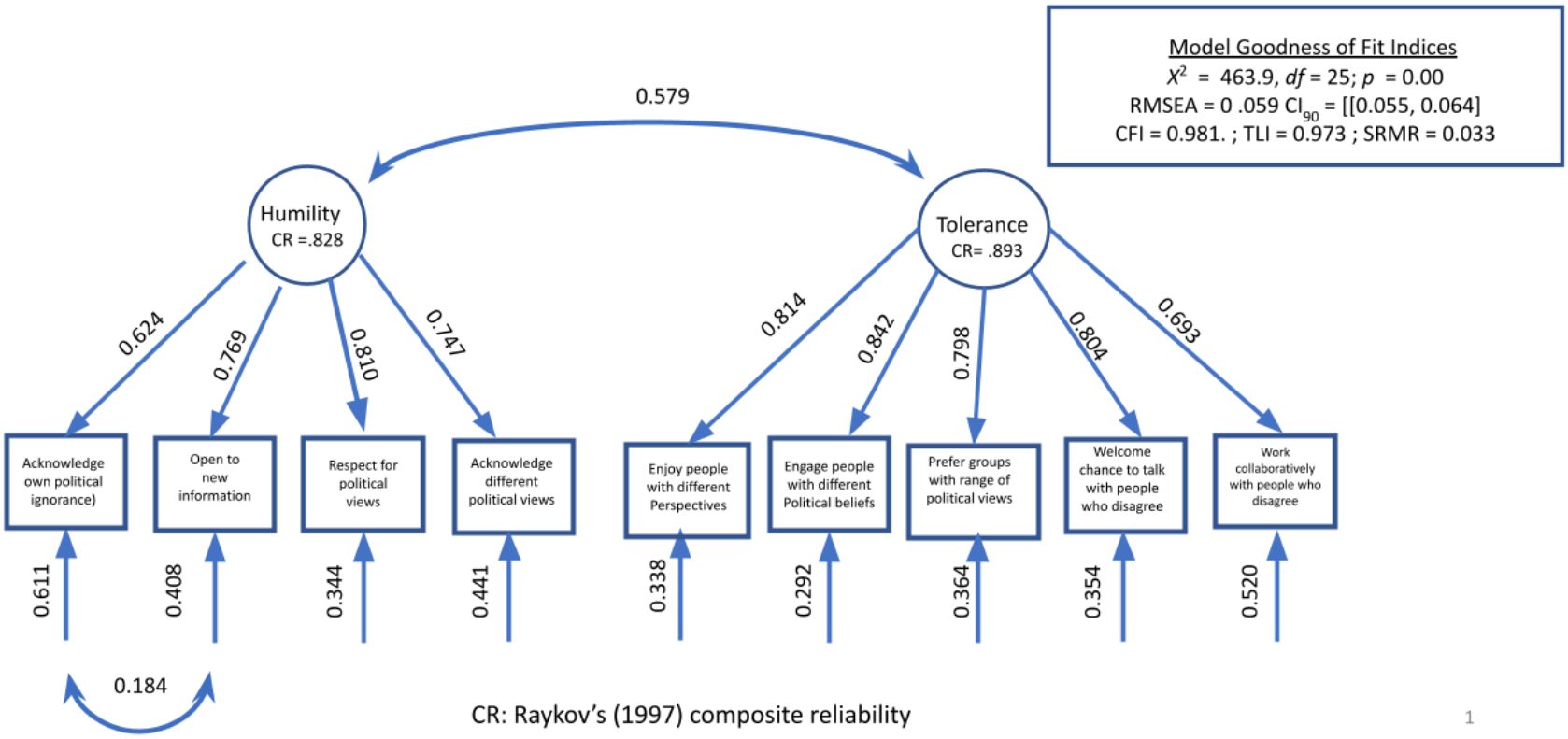


Figure 2. Tolerance for different political views
Test information function
Information
0
5
10
15
Standard error
.2
.4
.6
.8
1
<-- High information range -->
<--- High accuracy range --->
-4
-2
0
2
4
Tolerance for Different Political Views
Test information
Standard error

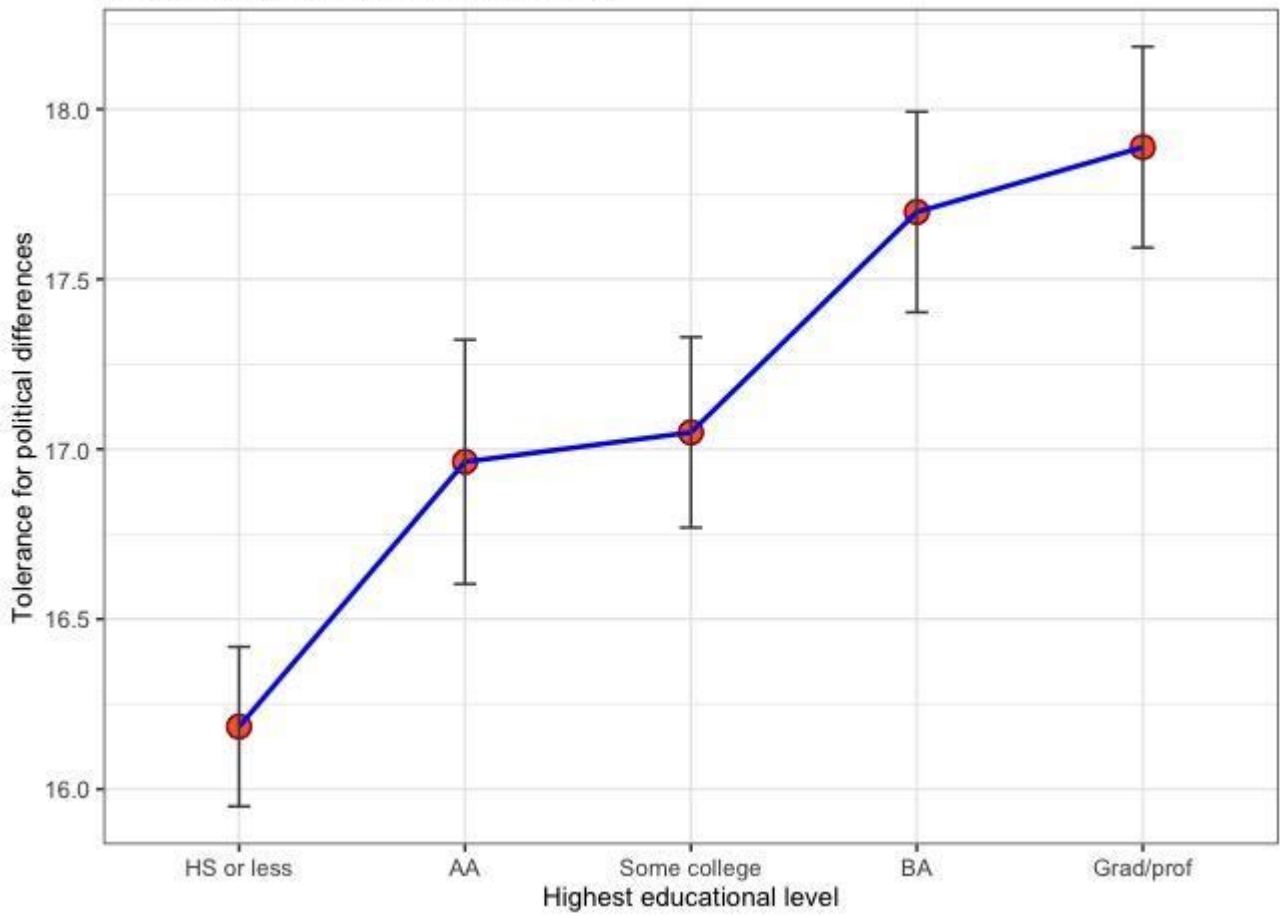
Figure 3. CFA of humility in political discourse & tolerance for different political views




CR: Raykov's (1997) composite reliability

Figure 4 Average tolerance by educational level

Mean plot with 95% confidence interval



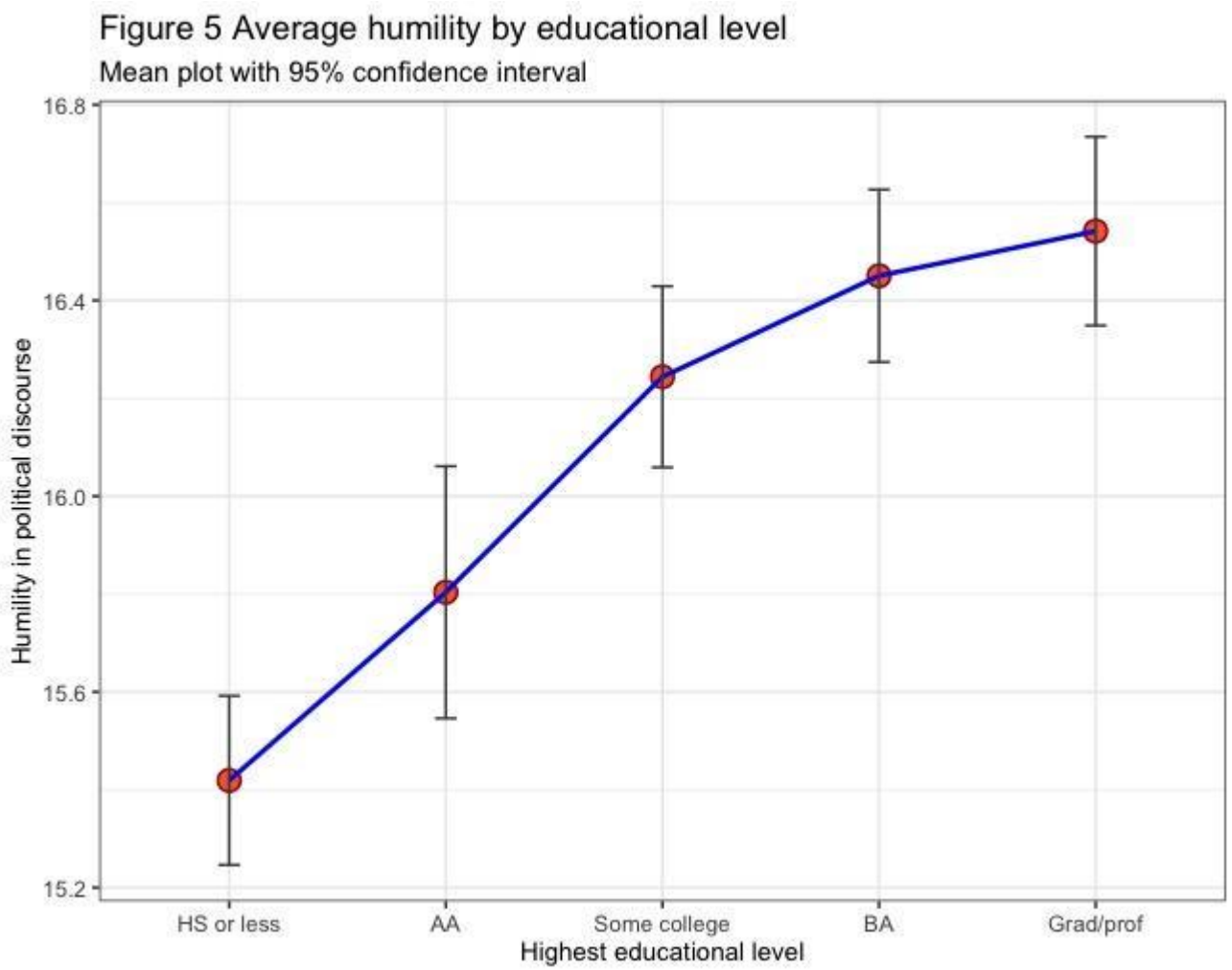


Figure 5 Average humility by educational level
Mean plot with 95% confidence interval
16.8
16.4
16.0
15.6
15.2
Humility in political discourse
HS or less
AA
Some college
BA
Grad/prof
Highest educational level