

Reliability and Validity of the Power of Difference Assessment

Christy M. Byrd, Corina De La Torre, and Stella Jackman-Ryan

Teacher Education and Learning Sciences, North Carolina State University, Raleigh, North
Carolina, United States

christy_byrd@ncsu.edu, (919) 515-1585

Christy M. Byrd is an associate professor in the department of Teacher Education and Learning Sciences. Her research examines how students make sense of race and culture in their school environments. She uses quantitative and qualitative methods to explore topics such as racial discrimination, multicultural education, and culturally relevant teaching. One area of research focuses on adolescents' perceptions of school climate for diversity, which includes intergroup interactions and school ethnic-racial socialization, and how perceptions are shaped by identity development and contextual factors. A second area of research considers the motivational factors that promote student engagement in diversity workshops, courses, and programs. Her work has shown that when youth experience their schools as positive, identity-affirming spaces, they are more academically engaged and successful.

Corina De La Torre is an emerging third year Ph.D. student in Teacher Education and Learning Sciences at North Carolina State University. She received two Bachelor of Arts in Psychology and Feminist Studies from the University of California, Santa Cruz. Corina teaches Educational Psychology at NCSU and is passionate about cultivating racially and culturally inclusive, community-oriented learning spaces. Outside of the classroom, Corina engages

directly with community leaders and residents of all ages to mobilize and advocate for long term policy changes that will result in safe and thriving neighborhoods.

Stella Jackman-Ryan is a fourth-year Ph.D. student in Teacher Education and Learning Sciences: Educational Psychology at North Carolina State University. She received a Bachelor of Science in Psychology and a Master of Science in Clinical Psychology at The University of the West Indies, Trinidad and Tobago. Stella's research interests are centered around teacher motivation and well-being and how these are impacted by school administrators' emotional intelligence. Besides this work, Stella is passionate about the unshared stories of marginalized students and how their experiences impact their sense of agency.

Abstract

This study explored the reliability and validity of the Power of Difference Assessment, a new measure created to identify the strengths and weaknesses of individuals in their commitment to diversity. The five dimensions of the assessment were reliable, showed the expected factor structure, and were correlated in expected ways.

Keywords: diversity; cultural competence; critical consciousness

Reliability and Validity of the Power of Difference Assessment

In the search for cultural competence, diversity trainers and counselor educators may be interested in assessments that go beyond evaluating individuals on a single dimension of competence. Instead, assessments are needed that can identify the strengths and weaknesses of even those who already show a strong commitment to diversity and equity. The Power of Difference Assessment (PDA) fills such a need. The current study explores the reliability and validity of this measure in a sample of young adults from across the United States.

Cultural Competence and Limitations of Current Measures

Cultural competence is the ability to recognize and understand the roles of identity, diversity, and inequality in society and interpersonal relationships and the ability to advocate for social change (Ratts et al., 2016). Many models of cultural competence exist, along with numerous forms of measurement. However, these measures have been subject to several critiques. Among these are concerns with a limited focus on race and culture, social desirability, and a lack of psychometric evidence.

Race/ethnicity and culture. First, the majority of cultural competence and diversity measures are concerned with attitudes and skills regarding race/ethnicity and/or culture to the exclusion of other social identities like gender, disability, and sexual orientation (Gamst & Liang, 2013; Kumas-Tan et al., 2007). There exist few assessments of competence regarding other social identities and even fewer that assess competence around multiple social identities.

Social desirability. Social desirability is a tendency to respond in a socially acceptable way rather than based on one's true beliefs or behaviors (Vella-Brodrick & White, 1997). Scholars have raised concerns that socially desirable responding can contaminate cultural competence measures and reduce their utility for assessing and training counselors and clinicians

(Constantine & Ladany, 2000). A systematic review found small to moderate correlations between social desirability and existing measures of cultural competence (Larson & Bradshaw, 2017), which suggests social desirability continues to be a significant issue.

Ceiling effects. Another concern with cultural competence measures is a ceiling effect, i.e., where the majority of participants obtain high scores (Wilcox et al., 2020). Ceiling effects violate assumptions of normality for statistical testing and contribute to limited utility for measuring growth as a result of training and intervention.

Lack of psychometric evidence. Finally, scholars have also been concerned that cultural competence measures do not have strong psychometric properties (Gamst & Liang, 2013). For example, Gamst and Liang (2013) evaluated 16 measures along nine criteria of the AERA Standards for Educational and Psychological Testing (American Psychological Association, National Council on Measurement in Education, 1999) and found that none met all nine and only one met eight. These criteria included acceptable Cronbach alpha scores, utilization of confirmatory factor analysis to establish dimensionality, demonstration of convergent and divergent validity, and social desirability checks. The current study evaluates the PDA in each of these areas.

The Power of Difference Model

The PDA is based on the Power of Difference Model (PDM), which describes patterns in how individuals relate and react to power differences between social identity groups (Cisneros & Sherrell, 2019). These “power perspectives” are patterns of cognition and affect that influence how one behaves. Each pattern can be described either as a general approach to diversity or as an approach to a particular social identity, such as race/ethnicity. The PDM proposes that each power perspective offers benefits and liabilities for effective functioning within an equitable,

socially just society. There are four power perspectives: *strength*, *oneness*, *sensitivity*, and *appreciation*. Individuals who can maximize the benefits and limit the liabilities of their perspectives are said to be *leveraging* or *leveraged*. The patterns are summarized in Figure 1.

Strength. Those high in strength see differences as relative and hierarchical, with their own identities and values being superior to others'. These individuals view the acknowledgment of others' differences as a threat; thus, individuals high in strength react to differences by attempting to minimize or eliminate them. The positive aspects of this perspective are decisiveness and a strong sense of conviction. Nevertheless, those high in this perspective may vilify the qualities of other groups and experience anger and frustration when members of marginalized groups demand recognition. Learning goals for individuals high in strength are valuing their similarities with others (oneness) and learning to tolerate ambiguity and vulnerability in the face of difference (sensitivity).

Oneness. Those high in oneness focus on a sense of common humanity while devaluing difference. Compared to those high in strength, they seek to embrace others who are different rather than seeing them as unworthy of notice. However, a person high in oneness implicitly only accepts others for how much they agree to conform to the dominant culture. Additionally, those high in oneness are conflict averse and emphasize "getting along" over having difficult discussions about power and difference. Areas for growth for those high in oneness are to become comfortable with difference and understand its relation to power structures (sensitivity) as well as draw on the clarity and certainty of the strength perspective.

Sensitivity. Those high in sensitivity value difference and acknowledge the role of power and privilege in society. They recognize power differentials and find working with diverse others to be exciting and fulfilling. Nevertheless, individuals high in sensitivity may find themselves

overwhelmed by the ubiquity of oppression and their desire to be equitable in all of their interactions. They need to develop skills to manage their feelings and work more effectively toward social change by learning how to be assertive in the face of oppression (strength) and combating isolation by finding community with other activists (oneness).

Appreciation. Appreciation is an emergent pattern in which individuals focus on an identity group that is not their own and idealize the group's members and characteristics, often leading to objectification and cultural appropriation. Those high in appreciation need to learn to value their own identities in addition to acknowledging the positives and negatives of other groups. Although originally considered an aspect of strength, appreciation is now considered to be its own pattern (E. Cisneros, personal communication, May 12, 2021).

Leveraged. The PDM proposes that individuals are *leveraged* when they utilize the best aspects of the four power perspectives. Those who are leveraged recognize differences and can build on commonalities to challenge oppression. They recognize their own privilege and feel efficacious in working toward social change both internally and in collaboration with others. They are confident in their pursuit of justice even in the face of obstacles because they have done the internal work themselves. They do not feel frustrated or burnt out by resistance from others—their goal is to do the best work, not force others to change. Leveraging is a life-long process that occurs in a spiral of continuous learning (Cisneros & Sherrell, 2019).

The PDM was developed to address the limitations of models that assumed a developmental trajectory of cultural competence (E. Cisneros, personal communication, May 12, 2021). The model contributes to the field's understanding of cultural competence by identifying patterns in beliefs and attitudes that would inhibit individuals from adequately putting their awareness, knowledge, and skills to use. Thus, rather than representing competence per se, the

PDM models effectiveness as a critically conscious actor. Individuals' scores can vary within and across patterns and within and across social identities, representing the complexity of individuals and how they approach different social issues. Because individuals are scored along seven social identities, individuals can precisely pinpoint areas of growth. For example, an individual who may score high on leveraging in race but low in gender may be an effective advocate for racial justice but struggle when thinking about gender equity. Given its focus on multiple social identities, the PDM and its associated measure, the PDA, fill at least one gap in the measurement of cultural competence (Gamst & Liang, 2013; Kumas-Tan et al., 2007). The current study will evaluate the extent to which the PDA is responsive to social desirability bias and has acceptable psychometric properties.

The PDA. The Power of Difference Assessment is a 70-item self-report measure of the dimensions of the PDM. It measures each power perspective as well as leveraging in relation to seven social identities: race, culture, sexual orientation, gender, socioeconomic class, religion, and disability. The Sum provides six scores for the PDA, one for each power perspective and an Unknown/Unacknowledged Power Quotient, which is the proportion of conflicts with the leveraged perspective. It is calculated with the difference between 56 (the highest possible leveraged score) and the leveraged score added to the sensitivity, oneness, strength, appreciation scores. An individual operating effectively, i.e., with fewer conflicts, will have a Power Quotient closer to 100%. For the purposes of the current study, we chose to model the PDA in a way more consistent with classical measurement models with five interrelated factors.

Comparisons with Other Constructs

In this section, we will describe constructs that we believe are conceptually related to the dimensions of the PDM. They are critical consciousness, color-evasiveness, social dominance orientation, relativistic appreciation, and multicultural competence.

Critical consciousness describes how individuals come to understand and work to address societal inequality. There are three components: 1) critical reflection, or awareness of inequality; 2) critical agency, one's sense of self-efficacy in taking action to address inequality; and 3) critical action, skills and behavior related to addressing inequality (Watts et al., 2011). In terms of the PDM, individuals who are leveraged would be high in critical consciousness: they are aware of how inequality functions, they feel a need to address inequality, and they have confidence in their ability to do so. In the current study, we will show convergent validity of the PDA leveraged dimension through strong and positive correlations with measures of critical reflection (awareness of racism) and critical agency. Critical reflection should also be moderately and positively associated with sensitivity because these individuals are aware of inequality. However, sensitivity should be negatively correlated with critical agency, because these individuals feel conflicted and unsure.

Color-evasiveness (also known as colorblindness) refers to the denial of racial dynamics; it is the belief that ideological and structural racism does not exist. Those high in color-evasive racial attitudes do not necessarily believe in racial superiority; rather, they accept inaccurate or distorted views of racial and ethnic minorities and race relations (Neville et al., 2000). This ideology attempts to avoid intergroup conflict by attempting to look beyond race and treating everyone as individuals rather than viewing them as members of specific groups. In terms of PDM, individuals with color-evasive attitudes would score high in oneness. Rather than having

difficult discussions about racial power and differences, these individuals would argue that “we are all the same” as long as minority groups assimilate to the dominant culture, thereby reinforcing the status quo and enabling the cycle of perpetuating inequalities (Hahn et al., 2015). In this study, we will show convergent validity of the PDA oneness through positive correlations with three measures of color-evasiveness. The first two measures focus on racial attitudes and include attitudes focusing on institutions that perpetuate racism intentionally or unintentionally (institutional discrimination) and denial of interpersonal racism (blatant racial issues; Neville et al., 2000). The third measure is not specific to race and focuses on attitudes that emphasize similarities in individuals over group differences (Hahn et al., 2015). Color-evasiveness should be positively correlated with oneness and strength and negatively correlated with leveraging because of the minimization of racial differences and the inability to recognize one’s own privileges.

Social dominance orientation describes the tendency for individuals to support inequality between social groups (Ho et al., 2015). It is represented along two dimensions —the dominance dimension and the egalitarian dimension. The dominance dimension reflects a preference for group-based dominance hierarchies involving *active* oppression of subordinate groups. The egalitarian dimension reflects resistance to equality between groups and it is supported by an interconnected network of *subtle* hierarchy-enhancing beliefs and social policies (Ho et al., 2015). In relation to the PDM, individuals scoring high on strength are expected to have a strong social dominance orientation since they value being superior to others. We will show convergent validity of the strength dimension through strong and positive correlations with both the dominance and egalitarian dimensions. We expect that individuals who are leveraged would be low on social dominance orientation since they would not only recognize their own privilege but

are driven to challenge oppressive actions. We therefore expect strong and negative correlations between social dominance orientation and leveraging.

Relativistic appreciation of oneself and others is a cognitive component of universal-diverse orientation (UDO), a broader set of attitudes related to appreciating how one is similar to and different from other people (Miville et al., 1999). In particular, relativistic appreciation describes individuals with a healthy sense of self who can appreciate similarities while valuing differences (Fuertes, 2000). Some have suggested that an unhealthy version of universal-diverse orientation may overly focus on similarities or differences with others to the detriment of one's sense of self (Miville et al., 1999). Thus, in regards to PDM, relativistic appreciation is similar to oneness and appreciation: valuing diversity in a way that is limited to one's self-understanding and interests. We will show convergent validity of the PDA oneness and appreciation with the measures of UDO's relativistic appreciation. It is expected that individuals who express high relativistic appreciation will have a moderate endorsement of oneness and a strong sense of appreciation.

The final set of validation constructs are multicultural competencies drawn from the Everyday Multicultural Competencies/Revised Scale of Ethnocultural Empathy (EMC/RSEE) (Mallinckrodt et al., 2014). The competencies assume that individuals need to not only have empathy for others who are culturally different from themselves but also to have (a) cultural relevant knowledge (e.g., knowledge of one's own cultural identity and of others), (b) multicultural skills (e.g., self-reflection, perspective-taking, intergroup communication), and (c) diversity related attitudes and awareness (e.g., pride in one's own culture, belief that discrimination is unjust, belief that intergroup interactions enhance quality of life) (Mallinckrodt & et al., 2014). In regards to PDA, we will use five of six subscales in the EMC/RSEE: (1)

awareness of contemporary racism and privilege (as a measure of critical consciousness), (2) cultural openness and desire to learn, (3) resentment and cultural dominance, (4) anxiety and lack of multicultural self-efficacy, and (5) empathic feeling and acting as an ally. We expect individuals who have cultural openness and desire to learn to have a positive and strong connection with leveraging while also having a positive moderate connection with sensitivity. Those who express resentment and cultural dominance are expected to have a positive strong connection with strength and a negative connection with leveraging. Those expressing anxiety and lack of multicultural efficacy are expected to have a positive strong sensitivity. Lastly, those with empathic feeling and acting as an ally are expected to have positive strong connections with leveraging and a negative relation to sensitivity.

Finally, we will assess the PDA in regards to social desirability. Societal norms in the U.S. are generally against explicit individual prejudice and discrimination, and individuals working within an organization in which they are asked to take a cultural competence assessment may have high motivation to show acceptable attitudes. If PDA scores are contaminated by social desirability, then they may be less useful for the purposes of assessment and training.

The Current Study

The goal of the current study was to evaluate the reliability and validity of the Power of Difference Assessment. The research questions were:

1. Does the factor structure of the PDA correspond to the PDM?
2. Are the dimensions of the PDA reliable?
3. Are the dimensions of the PDA associated with validating measures in expected ways?
4. How is social desirability correlated with PDA scores?

The hypotheses are 1) The PDM will show a structure consistent with the PDA. 2) The subscales representing the PDM dimensions will be internally reliable as measured by Cronbach's alpha greater than .70. Furthermore, strength will be 3a) strongly positively correlated with color-evasive racial attitudes (institutional discrimination and blatant racial issues); 3b) strongly positively correlated with social dominance orientation; and 3c) strongly positively correlated with resentment and cultural dominance. Sensitivity will be 3d) moderately positively correlated with critical reflection and negatively correlated with critical agency; 3e) moderately positively correlated with cultural openness and desire to learn; 3f) strongly positively correlated with anxiety and lack of multicultural efficacy; and 3g) negatively correlated with empathic feelings and acting as an ally. Oneness will be 3h) moderately positively correlated with color-evasiveness and color-evasive racial attitudes (institutional discrimination); and 3i) moderately positively correlated with relativistic appreciation. Appreciation will be 3j) strongly positively correlated with relativistic appreciation. Finally, leveraging will be 3k) strongly positively correlated with critical reflection and critical agency; 3l) negatively correlated with color-evasiveness; 3k) negatively correlated with social dominance orientation; 3m) positively correlated with cultural openness and desire to learn; and 3n) positively correlated with empathic feeling and acting as an ally. We did not have a specific hypothesis for research question #4 on social desirability.

Method

Participants and Procedures

Participants were 409 adults aged 18-29 ($M = 24.35$, $SD = 3.36$) recruited from nationwide panels by Qualtrics, an online survey company. The sample was 74.9% women, 24.4% men, and 0.8% non-binary. Fifteen individuals did not indicate their gender. In terms of

race, the sample was 55.2% White, 20.5% Black/African American, 10.7% Hispanic/Latinx, 8.7% Asian, 3.1% Native American, and 0.5% Middle Eastern. Eighteen individuals did not indicate their race or wrote “other”. A chi-square test indicated that the gender of participants was balanced within race ($\chi^2(12,1) = 8.84, p = .72$). When asked to indicate their education from a list of checkboxes, 25.4% of participants indicated that they had completed at least a bachelor’s degree.

Procedures were approved by the Institutional Review Board at North Carolina State University. Qualtrics invited participants to complete the survey using their proprietary sampling techniques. The initial sampling strategy was to identify 400 individuals between the ages of 18 and 29, 50% of whom were currently enrolled in undergraduate programs. However, due to coding errors and difficulty recruiting college students, the criteria were opened midway through the data collection process. To count as a “good complete”, participants needed to live in the United States, be within the age range, pass two attention checks, and take more than 240 seconds to complete the survey (the estimated minimum time for serious responding). Data collection was completed when 400 individuals had met all of the criteria for good completion. An additional 369 individuals began the survey but did not meet the criteria for a good complete for one or more reasons (358 for speed, 39 for age, and 11 for attention checks). Participants were compensated with credit for gift cards and other rewards through Qualtrics.

In addition to the PDM and validating measures, participants completed demographic information and a few open-ended items on their understanding of social identity and inequality, which are not analyzed in the current study. The PDM and validation items were combined into one block and randomized for each participant. All items were rated on a response scale of *strongly disagree* (1) to *strongly agree* (5).

Measures

PDA. The original PDA was developed by Elliot Cisneros and Carla Sherrell in 2016 and has been used to assess individuals participating in workshops and training through an organization called the Sum (Cisneros & Sherrell, 2019). The PDA has 70 items, two items representing each dimension (strength, sensitivity, oneness, appreciation, and leveraged) for each of seven social identities (race/ethnicity, culture, religion, gender, sexual orientation, ability/disability status, and socioeconomic status). In 2021, the developers worked with the first author to analyze existing assessment data and make recommendations for changes to item wording. The revised items were used in the current study.

Critical consciousness. Critical reflection was measured through the awareness of contemporary racism and privilege subscale of the EMC/RSEE (Mallinckrodt et al., 2014), a scale with eight items ($\alpha = .82$). An example item is “Today in the U.S., White people still have many important advantages compared to other ethnic groups.” Critical agency was measured with the critical consciousness motivation subscale of the Measure of Adolescent Critical Consciousness (McWhirter & McWhirter, 2016), which has ten items relating to agency and motivation for making a difference for racial and socioeconomic inequality ($\alpha = .84$). An example item is “I can make a difference in my community.”

Multicultural competencies. Multicultural competencies were measured using the EMC/RSEE (Mallinckrodt et al., 2014). The cultural openness and desire to learn subscale ($\alpha = .87$), has 10 items. An item example is “I think it is important to be educated about cultures and countries other than my own.” The resentment and cultural dominance subscale ($\alpha = .91$), has 10 items. An item example is “I feel irritated when people of different racial or ethnic backgrounds speak their language around me.” The anxiety and lack of multicultural self-efficacy subscale (α

= .78) has 7 items. An item example is “I feel uncomfortable when interacting with people from different cultures.” Both of these factors hold a negative affective component, although resentment indicates prejudicial attitudes whereas anxiety can be seen as missing specific skills. The empathic feeling and acting as an ally subscale, which emphasizes empathy as a motivation for critical action, has 8 items ($\alpha = .74$). An example item is “ I share the anger of people who are victims of hate crimes (e.g., intentional violence because of race or ethnicity).”

Color-evasiveness. Color-evasiveness was measured through three subscales, two from the Color-Blind Racial Attitudes Scale (CoBRAS; Neville & et al., 2000) and one from a four-fold model of intergroup ideology (Hahn et al., 2015). The CoBRAS includes seven items related to institutional discrimination ($\alpha = .79$) and six items relating to blatant racial issues ($\alpha = .79$). An example of institutional discrimination is “English should be the only official language in the U.S.” and an example of blatant racial issues is “Racism may have been a problem in the past, but it is not a problem today.” Institutional discrimination occurs in a larger aspect within institutions through intentional or unintentional bias whereas blatant racial issues are overt and recognizable as inherently racist. The third subscale by Hahn has four items ($\alpha = .70$) measuring an ideology that values similarities over differences. An example item is “In order to achieve a harmonious society, we must stop thinking of Americans as different from each other and instead focus on what makes us similar.”

Social dominance orientation. Social dominance was measured through the social dominance scale (SDO7), developed by Ho et al. (2015). SDO7 is a 16-item scale that comprises two subscales: the dominance (SDO7-D) subscale, which has 8 items ($\alpha = .77$). and egalitarian SDO7-E) subscale has 8 items as well ($\alpha = .81$). An example item from the SDO7-D is “Some

groups of people must be kept in their place” and an example item from the SDO7-E is “We shouldn’t try to guarantee that every group has the same quality of life.”

Relativistic Appreciation. Relativistic appreciation was measured through a subscale of the Miville-Guzman Universality-Diversity Scale (Miville et al., 1999), which includes five items ($\alpha = .76$). An example item is “In getting to know someone, I like knowing both how they differ from me and are similar to me.”

Social Desirability. Social desirability was measured with Marlowe–Crowne Social Desirability Scale - Short Form ($\alpha = .66$), and has 13 items. An example item is: “No matter who I’m talking to, I’m always a good listener.”

Results

Confirmatory Factor Analysis

There was no missing data among the study variables. We explored the factor structure of the PDA using confirmatory factor analysis (CFA) in Mplus 8.1 (Muthén & Muthén, n.d.). The PDA was modeled as a multitrait-multimethod (MTMM) model, which is a CFA model where each item loads on two factors. One factor (i.e., the traits) represented the patterns of beliefs (strength, sensitivity, oneness, appreciation, and leveraging). Each pattern is measured by two items for each of seven social identities, so the second set of factors (i.e., the methods) represent the social identities. This conceptualization models the fact that individuals’ scores in one perspective for a social identity will be related to their scores for other perspectives related to that identity. Although typically traits and methods are uncorrelated (Eid, 2000), in some cases it may be appropriate to allow correlations between traits and methods (Hintz et al., 2019).

An MTMM model is the most appropriate representation of the PDA because the PDM accounts for intersectional variation across belief patterns. We used a correlated-traits,

correlated-methods latent means model such that the pattern factors will represent the true score for the pattern across social identities (methods) and the social identity factors will represent the deviation of a particular identity from the mean true score for the patterns (traits). Correlations between traits and methods indicate how much the deviation increases or decreases in relation to the true score (Hintz et al., 2019).

Excellent fit was considered a CFI > .90 and a RMSEA < .05 (Hu & Bentler, 1995).

Since the data were ordinal, the WLSMV estimator with delta parameterization was used. Model specification included scaling of the latent variables by fixing one observed measure per factor to 1.0 and allowing the factors to covary; no cross-loadings of items or correlated item residuals were permitted. All traits and methods were allowed to correlate.

The MTMM model had excellent fit, with a χ^2 (2209, N = 409) = 3404.881, $p < .001$; CFI = .91; RMSEA = .036. Standardized parameter estimates are shown in Table 1. Hypothesis 1 was confirmed. Notably, the MTMM model fit better than a model that did not account for correlations within social identity: χ^2 (2335, N = 409) = 8712.731, $p < .001$; CFI = .53; RMSEA = .082.

Upon examination of the correlations between factors, many of the factors were weakly to moderately correlated. For example, sensitivity had a strong correlation with oneness ($r = .54$, $p < .001$) and appreciation ($r = .81$, $p < .001$). Furthermore, leveraging was significantly correlated with each of the other perspectives. Though the PDM implies that leveraging is somewhat opposed to the power perspectives, it only had a negative correlation with strength ($r = -.61$, $p < .001$) and was positively correlated with the other dimensions (sensitivity $r = .79$, $p < .001$; oneness $r = .31$, $p < .001$; appreciation $r = .96$, $p < .001$).

Reliability and Group Differences

We examined the reliability of the dimensions using Cronbach's alpha. Each alpha was above .70, which confirmed Hypothesis #2 (see Table 1). Means and standard deviations are also shown in Table 1. Given concerns with ceiling effects (Wilcox et al., 2020), we examined the distributions of each dimension. Each pattern was approximately normally distributed with the exception of leveraging, which had a bimodal distribution with peaks around 45 and 55. Strength had the widest range (56) and largest standard deviation (11.52) but the lowest mean (40.09) whereas leveraging had the smallest range (42) and standard deviation (8.31) and highest mean (51.57).

ANOVAs with Bonferroni post-hoc tests showed significant differences between Black/African American ($M = 43.36$, $SD = 11.80$) and White ($M = 37.95$, $SD = 11.10$) participants in endorsement of the strength perspective ($F(6,384) = 3.15$, $p = .005$). There were also differences by gender on strength ($F(2,391) = 15.21$, $p < .001$), sensitivity ($F(2,391) = 7.99$, $p < .001$), and leveraging ($F(2,391) = 4.07$, $p = .018$). For strength, men ($M = 44.84$, $SD = 11.28$) were significantly higher than women ($M = 38.60$, $SD = 11.18$) and those who used other labels ($M = 22.00$, $SD = 1.73$). Men ($M = 45.03$, $SD = 9.52$) were also significantly higher than women ($M = 41.38$, $SD = 7.83$) in sensitivity, though the mean difference was not as large. In terms of leveraging, both men ($M = 51.36$, $SD = 8.69$) and women ($M = 51.67$, $SD = 7.99$) were lower than those who used other gender labels ($M = 65.00$, $SD = 5.29$). Each effect size was small to medium (.02-.07). Age was significantly correlated with strength ($r = .13$, $p < .001$) such that older individuals scored higher. College graduates did not significantly differ from those who had not completed a bachelor's degree.

Validation Measures

Strength. Correlations are in Table 2. The findings confirmed our hypotheses that strength would be strongly positively correlated with color-evasive racial attitudes ($r_{\text{institutional discrimination}} = .84, p < .001$; $r_{\text{blatant racial issues}} = .70, p < .001$), social dominance orientation ($r_{\text{SDO-D}} = .69, p < .001$; $r_{\text{SDO-E}} = .69, p < .001$), and resentment and cultural dominance ($r = .89, p < .001$).

Sensitivity. We hypothesized that sensitivity would be moderately positively correlated with critical reflection and negatively correlated with critical agency. The results did not confirm our expectations: sensitivity was not significantly correlated with reflection ($r = -.03, p = .53$) and was positively correlated with agency ($r = .17, p < .001$). It was expected as well that sensitivity would be moderately positively correlated with cultural openness and desire to learn. This was not confirmed: even though there was a positive correlation, it was weak and non-significant ($r = .01, p = .80$). Sensitivity was expected to have a strongly positively correlated with anxiety and lack of multicultural efficacy and this was confirmed ($r = .66, p < .001$). Lastly for sensitivity, we predicted it would negatively correlate with empathic feeling and acting as an ally and this was confirmed ($r = -.15, p = .002$).

Oneness. We expected that oneness would be moderately positively correlated with color-evasiveness; this was confirmed ($r_{\text{Hahn}} = .51, p < .001$; $r_{\text{institutional discrimination}} = .40, p < .001$). We also expected oneness to be moderately positively correlated with relativistic appreciation, which was also confirmed ($r = .32, p < .001$).

Appreciation. Appreciation was expected to be strongly positively correlated with relativistic appreciation. Even though there was a positive correlation, it was moderate ($r = .34, p < .001$).

Leveraging. We hypothesized that the leveraged dimension would have strong and positive correlations with critical reflection and critical agency. This was confirmed ($r_{\text{reflection}} = .67, p < .001$; $r_{\text{agency}} = .73, p < .001$). Leveraging was also expected to have a negative correlation with color-evasiveness and a negative correlation with social dominance orientation. This was partially hypothesis was confirmed: leveraging had a negative correlation with social dominance orientation ($r = -.45, p < .001$) and color-evasive racial attitudes ($r_{\text{institutional discrimination}} = -.30, p < .001$; $r_{\text{blatant racial issues}} = -.53, p < .001$). However, there was a positive correlation with the third measure of color-evasiveness ($r = .46, p < .001$). Lastly, we expected leveraging to be positively correlated with cultural openness and desire to learn and positively correlated with empathic feeling and acting as an ally; both hypotheses were confirmed ($r_{\text{cultural openness}} = .74, p < .001$; $r_{\text{empathic feeling}} = .66, p < .001$).

Social desirability. Oneness and leveraging had the highest correlations with social desirability ($r = .51, p < .001$; $r = .46, p < .001$), whereas strength and sensitivity were not significantly related to it. Appreciation had a weak positive correlation with social desirability ($r = .18, p < .001$).

Discussion

The goal of this study was to show the reliability and validity of the PDA through confirmatory factor analyses, reliability analyses, ANOVAs, and correlations. The PDA met many of the most recent Standards for Educational and Psychological Testing, which has been a concern for other measures of cultural competence (American Educational Research Association et al., 2014; Gamst & Liang, 2013). First, we showed that the structure of the PDA was consistent with the PDM. Furthermore, the PDA dimensions showed good internal consistency with Cronbach's alphas above .70 and there were no ceiling effects.

In terms of group differences, the ANOVAs showed that men scored higher than women on strength, which is consistent with research on social dominance orientation, where high-status groups tend to score higher (Ho et al., 2015). Studies have also reported men's lower scores on cultural competence (Larson & Bradshaw, 2017). Men also scored higher on sensitivity (awareness coupled with discomfort), which may suggest that men, more than women, struggle with awareness of inequality. They may feel more uncertainty when working with people from marginalized identities because of an awareness of their privileged status in society compared to women.

A surprising finding was that Black/African American participants scored higher in strength compared to White participants, which is in contrast to existing research on social dominance orientation (Ho et al., 2015), though studies on cultural competence are more equivocal (Larson & Bradshaw, 2017). Follow-up analyses showed that, in our sample, Black participants were also higher on both SDO-D and SDO-E compared to White participants. It is not clear why this is the case. Our findings may reflect changes in Black conservatism as seen in larger shares of the Black vote for Republican candidates beginning in 2020 (Friess, 2022). Finally, it is not surprising that the three individuals who did not identify as men or women (all labeled themselves non-binary) were higher, on average, on leveraging, as those with marginalized identities tend to show higher levels of cultural competence (Larson & Bradshaw, 2017).

Validity

We evaluated convergent and divergent validity by examining correlations between the dimensions of the PDA and several existing measures. First, the strength dimension met our expectations in that it was strongly positively correlated with colorblind racial attitudes, social

dominance orientation, and resentment and cultural dominance. These attitudes correspond to a hierarchical view of society in which group differences and the concerns of marginalized groups are minimized (Hahn et al., 2015; Ho et al., 2015; Neville et al., 2000).

The sensitivity dimension was not correlated in all expected ways, i.e. positively with critical reflection and negatively with agency. The dimension was also not significantly associated with cultural openness and desire to learn. Although individuals high in sensitivity are theorized to be aware of inequalities, most of the items concern worry and confusion about difference, which can occur for individuals with any understanding of inequality. Furthermore, the weak, positive correlation with agency could indicate that those high in sensitivity are somewhat motivated to address inequality but lack the knowledge or skills to act. This idea is supported by the high positive correlation with anxiety and lack of multicultural efficacy and the negative correlation with empathic feeling and acting as an ally. Given that men were higher than women in sensitivity, high scores on this dimension may reflect more of a discomfort with inequality than an awareness of the nature of inequality, that is, an affective rather than cognitive relationship to inequality. The emotional aspect of sensitivity is partially consistent with the description of sensitivity in the PDM.

The correlations for oneness, on the other hand, were consistent with our hypotheses of moderate correlations with colorblindness and relativistic appreciation. Those high in oneness seek to minimize differences in favor of emphasizing similarities. In terms of appreciation, we expected a strong correlation with relativistic appreciation but only found a moderate one. This finding suggests that this dimension may indeed reflect a negative, singular focus on other identities (Miville et al., 1999). Of concern, however, were the high correlations for appreciation with sensitivity and leveraging ($r = .81, p < .001$; $r = .96, p < .001$), which may indicate that the

items do not clearly distinguish the appreciation pattern from the others. Future research should consider alternative models that reformulate or do not include appreciation.

Finally, the leveraged dimension met expectations in terms of convergent validity, with one exception. Given its relations to critical consciousness, color-evasive racial attitudes, social dominance orientation, cultural openness, and acting as an ally, we can conclude that the leveraging dimension in the PDA reflects its role in the PDM as an indicator of how much individuals are concerned about inequality and confidently work toward social change.

Nevertheless, the leveraged dimension was unexpectedly positively correlated with the Hahn color-evasiveness scale. We believe this is because the three color-evasiveness scales measure different aspects of color-evasive attitudes. There was a negative relation between the Hahn scale and CoBRAS blatant racial issues ($r = -.26, p < .001$) and CoBRAS institutional discrimination ($r = -.06, p < .23$). Whereas the racial attitudes scales focus on denying structural inequality, the Hahn scale emphasizes valuing similarities over differences, similar to oneness (in fact, the Hahn scale was also strongly correlated with oneness $r = .52, p < .001$). Therefore, the positive correlation between leveraging and Hahn scale may indicate that those high in leveraging have positive views of marginalized individuals but struggle with a desire for assimilation. Interestingly, Hahn and colleagues (2015) also found a high correlation between their measure of colorblindness and their measure of multiculturalism ($\beta = .79, p < .001$), since both ideologies emphasize positive evaluations of marginalized groups (but differ in an interest in maintaining distinctions between groups). Hahn and colleagues suggest that colorblind and multicultural perspectives should be considered simultaneously when examining outcomes, which is an approach similar to the PDM's focus on scores in multiple patterns.

Social Desirability

Scholars have critiqued cultural competence scales for being susceptible to social desirability, which limits their accuracy and utility (Larson & Bradshaw, 2017). Two dimensions, oneness and leveraging, had strong correlations with the social desirability scale. This might be expected because the dimensions are the most consistent with U.S. norms around common humanity and (explicitly) valuing diversity. When using the PDA in organizational applications, these tendencies may be mitigated when examining an individual's scores across all PDA dimensions. The PDM implies that high endorsement of particular power perspectives can limit one's effectiveness, so a high score on leveraging is likely to be balanced with high scores on the other patterns, which will point to the work that needs to be done. Furthermore, the learning goals for an individual scoring high in oneness would be the same even when a portion of their scores can be attributed to socially desirable responding: to be comfortable with acknowledging differences and admitting their own shortcomings. When the PDA is used in predictive analyses, we would encourage researchers to control for social desirability (Larson & Bradshaw, 2017).

Implications for Counseling Practice and Research

The PDM and PDA are useful to counselor educators and diversity trainers interested in evaluating an individual's cultural competence, particularly if they wish to focus on social identities other than race/ethnicity or culture. Individuals can simultaneously have both beneficial and problematic approaches to diversity. The PDM provides descriptions of patterns that can "get in the way" of a trainee's effectiveness, so it can be useful as a teaching tool to help describe various journeys toward effectiveness as a person invested in diversity, equity, and inclusion. The archetypes associated with each pattern (see Figure 1) are intuitive, which may be helpful for a lay audience. This study has demonstrated that the PDA is a reliable and valid

measure of those patterns. Therefore, we would recommend the PDA as a tool to assess an individual's strengths as well as their weaknesses.

As a research tool, the PDA has some limitations, including length (70 items). When excluding three participants who took more than four hours to complete the survey, the mean completion time was about 20 minutes ($M = 20.27$, $SD = 17.03$). Note, however, that the full survey included brief open-ended items that were not analyzed in the current study. Future research may want to consider whether some dimensions of the PDA are useful to assess apart from the other factors. Given that each pattern for each social identity is only measured with two items, we would encourage caution for researchers attempting to use the PDA to measure the patterns in regard to a singular social identity.

Other limitations are high intercorrelations between subscales (especially appreciation), and some contamination by social desirability. The PDA may be best used in person-centered analyses where multicollinearity is not an assumption violation. For example, a latent profile analysis would be consistent with the PDM and acknowledge that those scoring high in leveraging may also have high scores in strength, sensitivity, and oneness that may limit their effectiveness.

Future Directions and Conclusions

The current study was limited in that the majority of validation measures focused on racial beliefs, therefore evidence was not as strong for general cultural competence and cultural competence regarding specific other areas of diversity (e.g., ability, gender, and sexual orientation). Furthermore, the participants in the current study were early adults (ages 18-29), meaning the findings may not generalize to older adults. The sample was also predominantly White people and women. Future research should use more diverse samples and should explore

measurement invariance by various demographic categories. Finally, future research should explore the predictive validity of PDA.

In conclusion, the Power of Difference Model offers a new way to conceptualize patterns of beliefs around diversity, and the Power of Difference Assessment is a psychometrically sound measure of those patterns. Counselor educators, diversity trainers, and researchers can use the PDA to explore and promote cultural competence.

Acknowledgments

The authors would like to thank Elliott Cisneros, Crystal Farmer, and board members of the Sum for their feedback and support.

Declaration of Interest Statement

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

This research was funded by start-up funding from the first author from North Carolina State University.

References

- American Educational Research Association, American Psychological Association, & National Council on Measurement in Education. (2014). *Standards for Educational and Psychological Testing*. American Educational Research Association.
- American Psychological Association, National Council on Measurement in Education. (1999). *Standards for educational and psychological testing*. American Educational Research Association Washington, DC.
- Cisneros, E., & Sherrell, C. (2019). The Power of Difference Model In-Depth. *The Sum*.
<https://thesum.org/the-power-of-difference-model-in-depth/>
- Constantine, M. G., & Ladany, N. (2000). Self-report multicultural counseling competence scales: Their relation to social desirability attitudes and multicultural case conceptualization ability. *Journal of Counseling Psychology*, *47*(2), 155–164.
<https://doi.org/10.1037/0022-0167.47.2.155>
- Eid, M. (2000). A multitrait-multimethod model with minimal assumptions. *Psychometrika*, *65*(2), 241–261. <https://doi.org/10.1007/BF02294377>
- Friess, S. (2022, February 9). *GOP bets on Black conservatives as key to victory: “We change or we die.”* Newsweek. <https://www.newsweek.com/2022/02/18/gop-bets-black-conservatives-key-victory-we-change-we-die-1677030.html>
- Fuertes, J. N. (2000). *Factor structure and short form of the Miville-Guzman universality-diversity scale*. *33*(3), 157–169.
- Gamst, G. C., & Liang, C. T. H. (2013). A review and critique of multicultural competence measures: Toward a social justice-oriented health service delivery model. In F. A. Paniagua & A.-M. Yamada (Eds.), *Handbook of Multicultural Mental Health (Second*

Edition) (pp. 547–569). Academic Press. <https://doi.org/10.1016/B978-0-12-394420-7.00028-X>

Hahn, A., Banchevsky, S., Park, B., & Judd, C. M. (2015). Measuring intergroup ideologies: Positive and negative aspects of emphasizing versus looking beyond group differences. *Personality and Social Psychology Bulletin, 41*(12), 1646–1664.

<https://doi.org/10.1177/0146167215607351>

Hintz, F. A., Geiser, C., Burns, G. L., & Servera, M. (2019). Examining quadratic relationships between traits and methods in two multitrait-multimethod models. *Frontiers in Psychology, 10*. <https://www.frontiersin.org/article/10.3389/fpsyg.2019.00353>

Ho, A. K., Sidanius, J., Kteily, N., Sheehy-Skeffington, J., Pratto, F., Henkel, K. E., Foels, R., & Stewart, A. L. (2015). The nature of social dominance orientation: Theorizing and measuring preferences for intergroup inequality using the new SDO₇ scale. *Journal of Personality and Social Psychology, 109*(6), 1003.

Hu, L., & Bentler, P. M. (1995). Evaluating model fit. In R. H. Hoyle, *Structural equation modeling: Concepts, issues, and applications* (pp. 76–99). Sage Publications, Inc.

Kumas-Tan, Z., Beagan, B., Loppie, C., MacLeod, A., & Frank, B. (2007). Measures of cultural competence: Examining hidden assumptions. *Academic Medicine, 82*(6), 548–557.

<https://doi.org/10.1097/ACM.0b013e3180555a2d>

Larson, K. E., & Bradshaw, C. P. (2017). Cultural competence and social desirability among practitioners: A systematic review of the literature. *Children and Youth Services Review, 76*, 100–111. <https://doi.org/10.1016/j.childyouth.2017.02.034>

- Mallinckrodt, B., Miles, J. R., Bhaskar, T., Chery, N., Choi, G., & Sung, M.-R. (2014). Developing a comprehensive scale to assess college multicultural programming. *Journal of Counseling Psychology, 61*(1), 133–145. <https://doi.org/10.1037/a0035214>
- McWhirter, E. H., & McWhirter, B. T. (2016). Critical consciousness and vocational development among Latina/o high school youth: Initial development and testing of a measure. *Journal of Career Assessment, 24*(3), 543–558.
- Miville, M. L., Gelso, C. J., Pannu, R., Liu, W., Touradji, P., Holloway, P., & Fuertes, J. (1999). Appreciating similarities and valuing differences: The Miville-Guzman Universality-Diversity Scale. *Journal of Counseling Psychology, 46*(3), 291–307. <https://doi.org/10.1037/0022-0167.46.3.291>
- Mùthen, L. K., & Mùthen, B. O. (n.d.). *Mplus 8.1*.
- Neville, H. A., Lilly, R. L., Duran, G., Lee, R. M., & Browne, L. (2000). Construction and initial validation of the Color-Blind Racial Attitudes Scale (CoBRAS). *Journal of Counseling Psychology, 47*(1), 59–70. <https://doi.org/10.1037/0022-0167.47.1.59>
- Ratts, M. J., Singh, A. A., Nassar-McMillan, S., Butler, S. K., & McCullough, J. R. (2016). Multicultural and social justice counseling competencies: Guidelines for the counseling profession. *Journal of Multicultural Counseling and Development, 44*(1), 28–48. <https://doi.org/10.1002/jmcd.12035>
- Vella-Brodrick, D. A., & White, V. (1997). Response set of social desirability in relation to the mental, physical and spiritual well-being scale. *Psychological Reports, 81*(1), 127–130. <https://doi.org/10.2466/pr0.1997.81.1.127>

Wilcox, M. M., Franks, D. N., Taylor, T. O., Monceaux, C. P., & Harris, K. (2020). Who's multiculturally competent? Everybody and nobody: A multimethod examination. *The Counseling Psychologist*, 48(4), 466–497. <https://doi.org/10.1177/0011000020904709>

Table 1. Standardized loadings for MTMM model along with Dimension Descriptives and Cronbach's Alpha

	Power Perspective Loading	Identity Loading
Strength	$\alpha = .88$	Mean = 40.09, SD = 11.52
Religion1	0.863	0.869
Religion2	1.847	2.137
Ability1	0.254	-0.906
Ability2	0.024	-0.836
Culture1	1.370	1.867
Culture2	1.246	1.729
Gender1	1.667	2.030
Gender2	2.005	2.288
Race1	0.637	1.244
Race2	0.842	1.302
Class1	1.205	1.577
Class2	1.240	1.528
LGB1	0.846	0.492

LGB2		0.482	1.002
Sensitivity	$\alpha = .76$		Mean = 42.31, SD = 8.35
Religion1		0.527	0.408
Religion2		0.474	0.022
Ability1		0.351	-0.270
Ability2		0.476	0.035
Culture1		0.495	-0.461
Culture2		0.624	-0.030
Gender1		0.471	0.102
Gender2		0.645	0.080
Race1		0.472	-0.373
Race2		0.627	-0.284
Class1		0.523	-0.324
Class2		0.424	-0.728
LGB1		0.370	0.122
LGB2		0.427	0.233
Oneness	$\alpha = .83$		Mean = 48.91, SD = 9.18

Religion1	0.555	-0.148
Religion2	0.337	-0.301
Ability1	0.708	0.231
Ability2	0.608	0.006
Culture1	0.565	-0.259
Culture2	0.592	0.375
Gender1	0.594	-0.308
Gender2	0.498	-0.385
Race1	0.589	0.279
Race2	0.673	-0.005
Class1	0.430	-0.568
Class2	0.632	0.069
LGB1	0.578	-0.060
LGB2	0.490	-0.678
Appreciation $\alpha = .74$	Mean = 46.41, SD = 7.74	
Religion1	0.618	-0.558
Religion2	0.564	-0.491

Ability1	1.494	1.211
Ability2	2.040	2.281
Culture1	0.557	-0.789
Culture2	0.567	-0.588
Gender1	0.675	-0.063
Gender2	0.847	-0.236
Race1	0.812	-0.709
Race2	0.614	-0.154
Class1	0.561	-0.722
Class2	0.430	-0.682
LGB1	0.813	-0.752
LGB2	0.862	-0.855
Leveraging	$\alpha = .81$	Mean = 51.57, SD = 8.31
Religion1	0.523	-0.781
Religion2	0.198	-0.733
Ability1	6.020	6.310
Ability2	5.682	6.030

Culture1	0.499	-0.899
Culture2	0.696	-1.004
Gender1	0.599	-0.903
Gender2	0.434	-0.943
Race1	0.691	-1.240
Race2	0.726	-0.956
Class1	0.427	-0.886
Class2	0.907	-0.999
LGB1	0.846	-1.262
LGB2	0.913	-0.632

Table 2. Correlations between PDA dimensions and validating measures

	Strength	Sensitivity	Oneness	Appreciation	Leveraging
Critical Reflection	-0.548*	-0.031	-0.069	0.208*	0.668*
Critical Agency	-0.139*	0.166*	0.274*	0.521*	0.734*
Cultural Openness and Desire to Learn	-0.293*	0.013	0.262*	0.314*	0.738*
Resentment and Cultural Dominance	0.888*	0.539*	0.393*	0.253*	-0.269*
Anxiety and Lack of Multicultural Efficacy	0.690*	0.663*	0.219*	0.407*	-0.082
Emphatic Feeling and Acting as an Ally	-0.508*	-0.154*	0.135*	0.228*	0.661*
CoBRAS Institutional Discrimination	0.840*	0.447*	0.399*	0.135*	-0.302*
CoBRAS Blatant Racial Issues	0.704*	0.266*	0.149*	-0.068	-0.533*
Hahn Color-Evasiveness	-0.039	0.055	0.512*	0.184*	0.458*
Social Dominance Orientation – Dominance	0.690*	0.335*	0.064	0.110*	-0.448*
Social Dominance Orientation - Egalitarianism	0.688*	0.338*	0.078	0.039	-0.476*
Relativistic Appreciation	-0.203*	0.035	0.317*	0.337*	0.660*
Social Desirability	-0.039	0.055	0.512*	0.184*	0.458*

*p<.05

Figure 1. Summary of Power of Difference Model patterns

Patterns	View of Difference	Archetype
Strength	Threatening	Warrior
Oneness	Minimized	Lover
Sensitivity	Valued	Magician
Appreciation	Idealized	n/a
Leveraged	Integrated	Sovereign

Based on Cisneros & Sherrell, 2020