Ethnic Differences in Subclinical Paranoia: An Expansion of Norms of the Paranoia Scale

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The Paranoia Scale (PS) was designed to assess subclinical paranoid ideation (A. Fenigstein & P. A. Vanable, 1992). Despite its established validity, the PS has several problems that need to be addressed. There are no normative data on ethnic minority groups such as African Americans, making it difficult to interpret this group’s performance on the PS. Data from the present research revealed that African Americans scored higher on the PS than non-Hispanic Whites. However, interpretation of these findings should be tempered as they may reflect other contextual factors such as discrimination and the impact of racism. Implications for using the PS with African Americans and possible explanations for the observed results were discussed.

The Paranoia Scale (PS; Fenigstein & Vanable, 1992) was developed and designed to assess subclinical levels of paranoia. Traditional applications of the PS include research on paranoia in analogue samples such as undergraduates and nonpatients. The assessment of subclinical paranoia is important because recent conceptualizations...
of paranoia and other symptoms of psychosis view these phenomena as existing on a continuum rather than as discrete categorical entities (Bentall, Jackson, & Pilgrim, 1988). Subclinical paranoia has been defined by Fenigstein and Vanable (1992) as a mode of thought marked by exaggerated self-referential biases that occurs in normal everyday behavior. Such thinking is characterized by relatively stable tendencies toward suspiciousness, feelings of ill will or resentment, mistrust, and belief in external control or influence (Fenigstein, 1997; Fenigstein & Vanable, 1992). In contrast, clinical paranoia, as defined by the Diagnostic and Statistical Manual of Mental Disorders (4th ed., DSM–IV; American Psychiatric Association, 1994), can include delusions of persecution or personality traits of pervasive suspiciousness and extreme mistrust. This difference emphasizes that the concept of subclinical paranoia describes behaviors and beliefs that apply primarily to normal people, whereas clinical paranoia is more pathological and found mainly in people with psychiatric illness (see Peters, Joseph, & Garety, 1999, for a similar discussion on delusional beliefs). In this study, subclinical paranoia is used to describe behaviors and beliefs that occur in the normal population. Thus, the PS can be viewed as assessing the lower end of the paranoia continuum in contrast to other self-report measures such as the Minnesota Multiphasic Personality Inventory (MMPI) and the Personality Assessment Inventory (PAI; Morey, 1991), which measure more severe, pathological levels of paranoia.

One of the goals of the present research was to examine ethnic differences on the PS. Non-Whites have been described as having a higher prevalence of paranoia-related disorders than their non-Hispanic White counterparts (Kleiner, Tuckman, & Lovell, 1960; Ridley, 1984; Steinberg, Pardes, Bjork, & Sporty, 1977). Ethnicity, in general, has been identified as a crucial moderator variable for differences in the expression of psychopathology (Carter, Miller, Sbrocco, Suchday, & Lewis, 1999). More specifically, however, many of the environmental conditions that minorities face, such as low socioeconomic status (SES), poverty, social isolation, and the stresses of immigration, have been related to cultural mistrust and suspiciousness (i.e., subclinical paranoia; Fenigstein, 1998). This has led to the suggestion that paranoid ideation among African Americans may be a form of adaptive coping in the face of conditions that make one especially vulnerable to exploitation (Newhill, 1990) or a response to perceived racism (Clark, Anderson, Clark, & Williams, 1999). Grier and Cobbs (1968) described such adaptation on the part of African Americans as “healthy cultural paranoia” that may serve to protect them from the deleterious effects of continued exposure to discrimination. And, in fact, previous research has shown that African Americans score higher on several clinical paranoia measures, such as the MMPI and the PAI, compared with non-Hispanic White participants (Adams & Horovitz, 1980; Butcher, Braswell, & Raney, 1983; Morey, 1991). It is currently believed that the paranoia observed among African Americans is related to real-life threatening events and racism that these individuals encounter on a daily basis. Thus, paranoia becomes an adaptive coping response to these negative events (Newhill, 1990; Thompson, Neville, Weathers, Poston, & Atkinson, 1990). However, careful assessment of subclinical paranoia in the African American population has not been systematically undertaken.

The PS may be useful in this regard, but a current limitation of the PS is that the scale was developed and normed on a homogeneous group comprised almost entirely of non-Hispanic White participants. The present research attempted to address that limitation by collecting normative data for African American individuals on the PS. Measures of clinical paranoia were also included to establish convergent validity for the subclinical norms. Finally, given the theoretical and empirical relationship between paranoia and several other constructs, measures of anxiety, depression, self-esteem, and interpersonal trust (person is depend-
able, reliable, and looks out of one’s best interest) were also assessed to help provide construct validity for the existence of normal paranoid ideation among African Americans and to aid in the interpretation of PS scores (Bentall, Kinderman, & Kaney, 1994; Trower & Chadwick, 1995; Vinogradov, King, & Huberman, 1992; Zigler & Glick, 1988). It is important to emphasize that the measurement of paranoia in the present research does not distinguish between what may be a healthy psychological reaction to racism versus a general, maladaptive response indicative of psychopathology; that issue will have to be addressed in future research.

**Method**

**Participants**

Three hundred seventeen undergraduate college students from Louisiana State University (LSU) participated in the study. LSU is a large southern state-funded university with most of its students coming from nearby communities in Louisiana. Twenty-four students who identified with a variety of other ethnic groups (i.e., Asian, Native American, etc.) were not included in this study as there was an insufficient number of participants to compare with the other two ethnic groups. Thus, there was a total of 293 students in the final group of participants (280 with complete data), of which 208 were female and 85 were male students. Furthermore, there were 191 non-Hispanic Whites (123 female and 68 male) and 102 African Americans (85 female and 17 male; 13 African Americans had only PS scores). The mean age and educational level for the research participants was 21.5 years ($SD = 2.2$) and 14.5 years ($SD = 1.2$), respectively.

To examine group differences in demographics, we conducted chi-square analyses and $t$ tests. Chi-square analysis showed that there was a smaller number of African American men compared with non-Hispanic White men among participants, $\chi^2(1, N = 293) = 11.5, p < .01$. Finally, $t$ tests revealed that the ethnic groups did not differ in either age or educational level.

**Procedure**

Participants in this study were recruited by means of a centrally located sign-up board in the LSU Psychology Department to take part in a study titled “Beliefs About Others.” Because a large majority of university students take general classes in the department, this method of recruitment was felt to be the best method to reach the population of interest. The description of the study directly targeted African Americans and other ethnic backgrounds to increase their participation. Participants received extra credit toward coursework for their participation. All of the measures were randomized before administration to eliminate any order effects. Participants were tested in groups of 20 per session. After obtaining consent, participants completed a demographic questionnaire along with the study measures. Completion time averaged about 40 min. Participants were given extra credit only after completion of all study materials.

**Measures**

**Paranoia Scale.** The PS is a 20-item scale that measures subclinical levels of paranoid ideation (Fenigstein & Vanable, 1992). The PS is scored on a 1–5 Likert scale with scores ranging from 20 to 100. Higher scores reflect higher levels of subclinical paranoia (defined in the introduction). The PS was developed for use in analogue samples and was not intended for clinical or diagnostic use. The scale has demonstrated good internal consistency ($\alpha = .84$) and stability ($r = .70$) and has been shown to be sensitive to experimental manipulations of paranoia, such as two-way mirrors. The PS also positively correlated with higher scores on a measure of anger and negatively correlated with lower scores on a measure of interper-
sonal trust (Fenigstein & Vanable, 1992). In the present study, the internal consistency of the PS was .86 (non-Hispanic Whites = .88; African Americans = .79). Strengths of the PS include its sound psychometric characteristics, its link to experimental studies on paranoia, and its usefulness as a measure of normal paranoid ideation in analogue research studies. Weaknesses of the PS include a limited normative sample, which includes primarily non-Hispanic Whites.

PAI Paranoia Subscale. The PAI Paranoia subscale is a 24-item scale that can be used in clinical and diagnostic situations to assess a wide range of paranoid beliefs and behaviors (Morey, 1991). This scale is scored on a Likert scale from 0 to 3 with scores ranging from 0 to 72. Higher scores reflect increased levels of paranoia. Factor analysis revealed that this subscale can be broken down into three subscales labeled hypervigilance, resentment, and persecution (Morey, 1991). The PAI was normed on a diverse sample of community (based on U.S. Census), clinical, and college student participants and included a sizable number of African Americans (between 2.8% and 12.6% of the samples). An extensive description of the clinical validity of the PAI can be found in Morey (1991). The internal consistency for the entire scale was .80 and for the Paranoia subscale as well (.85; Morey, 1991). In the present study, the internal consistency of the entire 25-item scale was .86 (non-Hispanic Whites = .86; African Americans = .83).

Structured Clinical Interview for DSM–IV Personality Screening Questionnaire—II (SDIC–II). The SCID–II (First, Gibbon, Spitzer, Williams, & Benjamin, 1995) is a 110-item screening test that assesses for the presence of personality characteristics based on DSM–IV criteria. From this scale, three subscales (25 items in total) reflecting DSM–IV paranoid, schizoid, and schizotypal (Cluster A disorders) personality characteristics were selected for use in this study. These three subscales were chosen because of their theoretical and conceptual relationship with paranoia. Items are scored in a dichotomous yes/no format. Responses are then summed to give a total score for each of the three subscales used in the analyses. The Paranoia subscale scores range from 0 to 8, the Schizotypal subscale scores range from 0 to 9, and the Schizoid subscale scores range from 0 to 8. In general, higher scores reflect more of the personality characteristic being assessed. The SCID–II screening questionnaire used in this study has demonstrated acceptable reliability (Cohen’s k = .78) and utility data (did not overendorse personality disorders and was a valid screening measure; Ekselius, Lindstrom, Von Knorring, Bodlund, & Kullgren 1994; Jacobsberg, Perry, & Frances, 1995). In the present study, the internal consistency of the entire 25-item scale was .71 (non-Hispanic Whites = .66; African Americans = .69).

Rosenberg Self-Esteem Scale (RSES). The RSES is a 10-item scale used to assess self-esteem level (Rosenberg, 1965). This scale is scored on a Likert scale of 1–4 with scores ranging from 10 to 40; higher scores reflect increased levels of self-esteem. Internal consistency reliability has been shown to be high (α = .92). This scale has excellent validity data, which can be found in Robinson and Shaver (1973). The RSES correlates highly with measures of self-acceptance and other self-esteem inventories (Grandall, 1973). The RSES was normed on a sample of 5,024 high school students that included African Americans. In the present study, the internal consistency of the RSES was .91 (non-Hispanic Whites = .91; African Americans = .89).

Interpersonal Trust Scale. The Interpersonal Trust Scale is a 17-item scale used to assess level of trust in interpersonal relationships (Rempel, Holmes, & Zanna, 1985). This scale is scored on a Likert scale from 3 to 3, with scores ranging from −51 to 51. Scores are viewed on a continuum with negative scores indicative of low levels of interpersonal trust and positive scores reflect-
tive of higher levels of trust. The internal consistency of this scale was shown to be acceptable ($\alpha = .81$). Validity data can be found in Rempel et al. (1985) and Fenigstein and Vanable (1992). The scale correlated negatively with the PS (Fenigstein & Vanable, 1992) and was found to be positively correlated with a variety of partner ratings of interpersonal closeness (Rempel et al., 1985). In the initial normative study, no information was provided on the ethnic background of the participants. In the present study, the internal consistency was .89 (non-Hispanic Whites = .89; African Americans = .87).

**BECK DEPRESSION INVENTORY—2 (BDI–2).** The BDI–2 is a 21-item scale that measures the severity of depressive symptoms (Beck, Steer, & Brown, 1996). The scale is rated on a Likert scale from 0 to 3, and scores range from 0 to 63. Higher scores reflect an increased severity of depressive symptoms. The BDI–2 has demonstrated good reliability and substantial convergent (with other measures of depression) and discriminant validity and has been widely used in research on depression. Normative samples are diverse and included African Americans (Beck et al., 1996). In the present study, the internal consistency of the BDI was .89 (non-Hispanic Whites = .89; African Americans = .89).

**FEAR QUESTIONNAIRE (FQ).** The FQ is a 15-item scale that measures fear and phobic anxiety to specific environmental events and situations (Marks & Mathews, 1979). Responses are scored on a Likert scale format of 0–8, FQ total scores range from 0 to 120, and higher scores reflect an increased level of phobic fear. Reliability and validity data for a clinical sample can be found in Mavissakalian (1986). In addition, a study by de Beurs, Lange, Van Dyck, Blonk, and Koele (1991) showed that the FQ positively correlated with a behavioral avoidance test (i.e., more distance from a feared stimulus) for phobic anxiety. Normative data for the FQ using a large sample of African Americans (12%) based on the U.S. Census can be found in Gillis, Haaga, and Ford (1995). In the present study, the internal consistency of the entire FQ was .86 (non-Hispanic Whites = .85; African Americans = .86).

**BRIEF FEAR OF NEGATIVE EVALUATION SCALE (FNE).** The FNE (Leary, 1983) is a 12-item scale that measures social anxiety and fear of criticism and negative evaluation. It is scored on a 1–5 Likert scale with a range of 12 to 60. Higher scores reflect more social anxiety and fear of evaluation and criticism. Internal consistency data were found to be excellent for this brief scale ($\alpha = .90$; Leary, 1983). Validity data showed that the brief FNE positively correlated with the Interaction Anxiousness Scale and the Social Avoidance Scale (Leary, 1983). The brief FNE was developed on a sample of 351 college students, but no information regarding the ethnic breakdown of the sample was provided. In addition, the brief version used in this study correlates highly with the original version (Watson & Friend, 1969). In the present study, the internal consistency of the FNE was .84 (non-Hispanic Whites = .85; African Americans = .81).

### Results

**Statistical Analyses**

Data analyses were conducted in the following manner. First, normative scores were derived for each ethnic group on the PS. Ethnic group differences on the PS and other study measures were explored with pairwise comparison tests. Analyses of variance were used for more complex comparisons. When appropriate, the Bonferroni adjusted probability values were used for multiple comparison tests to control for Type I error.

**Normative Scores**

The overall mean on the PS for the total sample was 41.4 ($SD = 11.1$). The internal
consistency was .88 and .79 for non-Hispanic Whites and African Americans, respectively. The mean inter-item correlation for all items in the PS was .27 for non-Hispanic Whites and .22 for African Americans. The mean score, internal consistency measures, and inter-item correlations were consistent with those found in previous research on the PS (Fenigstein & Vanable, 1992). Before an examination of ethnic differences in PS scores and the other measures was conducted, the effect of gender on test scores was first assessed. A 2 (ethnic group) × 2 (gender) multivariate analysis of variance did not reveal any significant gender differences (all $ps > .05$) or interactions on the PS, the PAI, or the SCID–II Paranoia, Schizotypal, or Schizoid subscales; thus data were collapsed across gender. Normative scores for non-Hispanic Whites and African Americans on all of the respective measures used in this study can be found in Table 1.

As evident in Table 1, there were ethnic group differences found on several of the measures. African Americans had significantly higher scores than non-Hispanic Whites on the PS, $t(291) = 2.8, p = .005$; the PAI Paranoia scale, $t(278) = 3.8, p = .001$; and the SCID–II Paranoia subscale, $t(278) = 4.0, p = .0001$. There were also ethnic differences on the SCID–II Schizotypal subscale, $t(278) = 3.2, p = .001$, and Schizoid subscale, $t(278) = 6.9, p = .0001$, as well as the FQ, $t(277) = 3.3, p = .001$. The African American participants endorsed more Axis II items on the SCID–II (e.g., having few close friends, belief in supernatural powers, and lack of caring about the opinions of others) and reported more anxious avoidance of various situations than non-Hispanic Whites. The difference between ethnic groups on the interpersonal trust measure, $t(277) = 2.3, p = .02$, only approached statistical significance (after applying Bonferroni correction), with African Americans reporting less trust of others than non-Hispanic Whites.

An analysis of covariance (ANCOVA) was conducted to determine if the observed differences on the PS were maintained after controlling for the effects of anxiety (FNE and FQ) and depression (BDI-2). Depression and anxiety scores were included as covariates because of their supposed theoretical relationships with paranoia. It should be noted that an assumption of the ANCOVA is that there is no interaction between the covariates and the independent variables. The results of the ANCOVA showed that there were no significant interactions found between ethnic group and the covariate mea-

<table>
<thead>
<tr>
<th>Measure</th>
<th>Non-Hispanic White</th>
<th>African American</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paranoia Scale</td>
<td>40.0</td>
<td>43.9</td>
<td>.005*</td>
</tr>
<tr>
<td>PAI Paranoia total</td>
<td>20.9</td>
<td>25.8</td>
<td>.0001*</td>
</tr>
<tr>
<td>SCID–II</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paranoia</td>
<td>2.3</td>
<td>3.4</td>
<td>.0001*</td>
</tr>
<tr>
<td>Schizotypal</td>
<td>2.0</td>
<td>2.8</td>
<td>.001*</td>
</tr>
<tr>
<td>Schizoid</td>
<td>1.7</td>
<td>3.1</td>
<td>.0001*</td>
</tr>
<tr>
<td>Rosenberg Self-Esteem Scale</td>
<td>32.5</td>
<td>33.7</td>
<td>ns</td>
</tr>
<tr>
<td>Fear Questionnaire</td>
<td>41.0</td>
<td>49.2</td>
<td>.001*</td>
</tr>
<tr>
<td>Fear of Negative Evaluation Scale</td>
<td>33.2</td>
<td>31.3</td>
<td>ns</td>
</tr>
<tr>
<td>Beck Depression Inventory–2</td>
<td>10.8</td>
<td>11.8</td>
<td>ns</td>
</tr>
<tr>
<td>Interpersonal Trust Scale</td>
<td>22.9</td>
<td>17.8</td>
<td>ns</td>
</tr>
</tbody>
</table>

Note. Comparison $t$ tests were used for all comparisons. Bonferroni adjusted $p$ value = .005. PAI = Personality Assessment Inventory; SCID–II = Structured Clinical Interview for DSM–IV Personality Screening Questionnaire—II.

*Significant at Bonferroni adjusted $p$ value.
sures of depression or anxiety (all ps > .05). More importantly, the results showed that the initial ethnic group differences in PS scores were still evident after the ANCOVA analysis, \( F(1, 279) = 5.5, p = .01 \), suggesting that the group differences in subclinical paranoia cannot be explained by depression or anxiety levels.

**Discussion**

The purpose of this study was to collect and examine normative data for African Americans on the PS. In general, the overall mean, internal consistency, and inter-item correlations found in this study were highly comparable with the values reported in the initial validation study by Fenigstein and Vanable (1992). However, in accordance with the specific goals of the present research, ethnic differences were found: African Americans scored significantly higher than non-Hispanic Whites on the subclinical PS, with these differences remaining significant even after controlling for the ratings on the depression and anxiety measures. On the PS, highly endorsed items by African Americans included a lack of trust in others, a mistrust of the motives of others, being on guard with others, and beliefs of criticism by others. African American participants also had significantly higher scores on two other clinical self-report measures of paranoia: the PAI scale (replicating the findings of Morey, 1991) and the SCID–II Paranoia subscale (First et al., 1995). Consistent with previous research showing similar ethnic differences on the Paranoia scale of the MMPI (Butcher et al., 1983), these findings suggest consistent differences between the two ethnic groups across various self-report measures of paranoid ideation. However, the results of this study do not suggest that African Americans are more pathologically paranoid than other ethnic groups. Rather, the group differences may reflect mistrust or interpersonal wariness caused by pervasive discrimination and perceived racism (e.g., Clark et al., 1999; Fenigstein, 1998; Newhill, 1990).

The proper application and interpretation of these results is necessary to reduce any negative impact of these findings on African Americans. An example of this negative impact is that non-Whites have been described as having a higher prevalence of paranoia-related disorders than their non-Hispanic White counterparts (Kleiner et al., 1960; Ridley, 1984; Steinberg et al., 1977). Besides the arguments made by Newhill (1990) regarding the importance of environmental variables on paranoia, the impact of racism on paranoia has received increased attention. It has been argued that racism functions as a stressor and may lead to paranoid ideation. Racism has been associated with a variety of negative psychological and health-related variables (Clark et al., 1999). A study by Thompson et al. (1990) found that racism was positively correlated with a measure of cultural mistrust in a group of African American college students. The authors related mistrust to real events that these students face on a daily basis. Most importantly, cultural mistrust was described as a normal, healthy response to their environment. Another explanation for this elevation in subclinical paranoia scores among African Americans can be found in social-learning theory. Haynes (1986) argued that paranoid ideation is a learned behavior and may be modeled and reinforced by parents and significant others. Thus, it is important that the social and cultural context of paranoia be considered, especially for African Americans.

Ethnic differences on the PS have a number of implications. In practical terms, it indicates that when the scale is administered, different normative standards may need to be used for African Americans and non-Hispanic Whites, as well as possibly for other ethnic groups (as discussed in Gillis et al., 1995). The use of different standards may be especially important when using the PS with relatively healthy, analogue samples for which cognitive and information-processing differences may be subtle and difficult to detect (Combs, Penn, & Mathews, in press).
The ethnic differences identified were also consistent with theoretical expectations (i.e., African Americans displayed higher levels of subclinical paranoia), thus offering additional construct validation for the scale and suggesting that the scale may be appropriately used across different ethnic populations. In support of this conclusion, the results of the internal consistency analyses suggest that the PS is a psychometrically sound instrument for use with African American individuals. Overall, these findings indicate that the PS is measuring the same psychological construct in both of the ethnic groups studied.

A limitation of this study was the omission of any measures of perceived racism (discussed in Clark et al., 1999). Therefore, we were unable to assess whether the observed ethnic differences on the various measures remained after controlling for perceived racism and discrimination. This is a critical issue and one that needs to be examined in subsequent research. Also, no measure of SES was administered to assess the relationship between income level and paranoia scores. Finally, because the participants consisted primarily of southern college students, the generalizability of the results is limited, and further research with broader, more diverse samples is needed to extend the present findings.

Future research in this area should focus on the behavioral correlates of paranoia that occur in various ethnic groups. Potential behaviors could include social distance from the examiner, observer ratings of wariness, and number of verbalizations indicating mistrust or suspicion (as suggested in Thompson et al., 1990). It is hoped that the development and application of psychometrically sound measures, such as the PS, will bring us one step closer to unraveling this important psychological construct.

References


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