Inquiry into the influence of cultural context variables on vocational behavior remains a primary research need in vocational psychology. Responding to this need, individualism-collectivism (I-C) constructs were examined as an individual differences cultural context variable relative to: (1) fit and consistency of expressed occupational choice with reported occupational planning attitudes and behaviors; (2) work values; and (3) family background and expectations of 268 college students representing various racial-ethnic groups in the United States. Participants responded to the INDCOL scale, the Occupational Plans Questionnaire, the Work Values Inventory, and a work and family questionnaire constructed for the present study. Results indicated some significant albeit low to moderate relationships between I-C and various scales of the career-related measures. (Contains 39 references.) (Author/GCP)
Cultural Value Orientation, Family Expectations, and Career Development

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Abstract

Inquiry into the influence of cultural context variables on vocational behavior remains a primary research need in vocational psychology. Responding to this need, individualism-collectivism (I-C) constructs were examined as an individual differences cultural context variable relative to (a) fit and consistency of expressed occupational choice with reported occupational planning attitudes and behaviors, (b) work values, and (c) family background and expectations of 268 college students (178 women, 90 men) representing various racial-ethnic groups in the United States. Participants responded to the INDCOL scale (Singelis, Triandis, Bhawuk, & Gelfand, 1995), the Occupational Plans Questionnaire (Hershenson, 1967), the Work Values Inventory (Super, 1970), and a work and family questionnaire constructed for the present study. Results indicated some significant albeit low to moderate relationships between I-C and various scales of the career-related measures.
Cultural Value Orientation, Family Expectations, and Career Development

Derived from cross-cultural social psychology (Hofstede, 1980), the constructs of individualism and collectivism (I-C) have garnered a substantial amount of research attention in diverse areas of inquiry. Studies have investigated and found links between I-C and a variety of variables ranging from personality development (Triandis, 2001; Triandis & Suh, 2002), suicide (Ayyash-Abdo, 2002; Kemmelmeier, Wieczorkowska, Erb, & Burnstein, 2002), and substance abuse (Gire, 2002) to human resource management (Early & Gibson, 1998; Ramamoorthy & Carroll, 1998), mental health help-seeking behavior (Cauce, Domenech-Rodriguez, Paradise et al., 2002; Tata & Leong, 1994), and leadership styles (Offermann & Hellmann, 1997). Given its popularity among researchers, I-C has been described as "arguably, the most widely used construct in cross-cultural psychology" (Voronov & Singer, 2002, p. 462). Despite its widespread use, Voronov & Singer (2002) concluded from their critical review of the I-C literature that little empirical evidence exists to support the explanatory value of the construct. This criticism is at once both tempered and supported by a review of meta-analyses of the empirical research on I-C (Oyserman, Coon, & Kemmelmeier, 2002). Elsewhere, extensive cross-national and cross-cultural study has widely supported the construct validity of I-C (cf. Triandis, 1995, 2001).

In vocational psychology, I-C has been advanced as a cultural context variable useful for comprehending vocational behavior and development (Leong, 1993, 1997; Leong & Tata, 1990). Studies have examined and found evidence for linkages between I-C constructs and career-related variables of work-style and problem solving behavior (Workman, 2001), vocational personality type and work values (Soh & Leong, 2002), and career commitment (Noordin, Williams, & Zimmer, 2002). Another study in this regard examined I-C as an individual differences variable relative to the career plans and work values of a sample of predominantly European American college students (Hartung, Speight, & Lewis, 1996). Results indicated no significant relationships between level of collectivism and either fit and consistency of expressed occupational plans with personal attitudes and behaviors or work values, casting some doubt about the utility of I-C as an explanatory construct at the level of the individual. As a follow up to the Hartung et al. study, which may have been limited by its heterogeneous sample and use of a projective measure of I-C, the present research examined I-C as a cultural context variable relative to occupational plans, work values, and family expectations using a more ethnically heterogeneous sample and an objective measure of the constructs.

Individualism-Collectivism

Defining attributes. Hofstede's (1980) landmark work on
cultural dimensions first popularized the I-C constructs. Triandis (1994) subsequently elaborated on I-C as "cultural syndromes" or patterns of "beliefs, attitudes, self-definitions, norms, and values that are organized around some theme that can be identified in a society" (p. 2). Research in social psychology and cross-cultural psychology indicates that I-C predicts social behavior and correlates with specific defining personal attributes (cf. Triandis, 1994, 1995). Fundamentally, individualism reflects cultural patterns that promote independence, whereas collectivism reflects cultural patterns that foster interdependence (Triandis, McCusker, & Hui, 1990). Simply stated, "among individualists one is what one does; among collectivists one is what one's group does" (Triandis, Brislin, & Hui, 1988, p. 274).

T. Parsons (1951) differentiated individualism from collectivism by associating the former with a self-orientation that allows for the pursuit of any personal, private interests or goals without great concern for those of the collective. As Hui and Triandis (1986) stated, "Self-oriented persons [predominantly found in individualist cultures] always act in their own interests, or in the interests of a very small 'subcollectivity', [whereas] collectivism is the pursuit of common interest" (p. 227). Individualism emphasizes emotional detachment, independence, and the primacy of individual goals and aspirations over those of the groups to which the individual belongs. Constructs such as autonomy, agency, and separation define individualism (Kashima et al., 1995).

Collectivism emphasizes social integrity, regard for in-group norms, and the primacy of in-group (e.g., familial, community, or national) goals over personal goals, needs, and aspirations. An interdependent, communal, and relational orientation characterizes collectivism.

Although likely moderated by social class and individual variability, I-C theory suggests that European Americans tend to be more highly individualistic, whereas members of the predominant racial and ethnic minority groups in the United States (i.e., Asian American, African American, Hispanic American, and Native American) tend to be more collectivistic (Triandis, 1994). Oyserman et al. (2002) recently found, however, that European Americans were not more individualistic than African Americans or Latinos and not less collectivistic than Japanese or Koreans. Cross-nationally, English-speaking countries such as Australia, Canada, and Great Britain evidence generally high levels of individualism, whereas most countries in Africa, Asia, and Latin America evidence generally high levels of collectivism (Hofstede, 1980). The United States maintains a very high level of individualism overall.

Construct dimensionality. I-C was initially conceptualized as a bipolar, unidimensional variable that differentiates cultures cross-nationally (Hofstede, 1980). Scholars have since proposed that I-C constitutes a multidimensional construct suitable for study.
as an individual differences variable (Kagitcibasi, 1994; Schwartz, 1994; Triandis, 1994; Triandis et al., 1990). Recasting I-C as a multidimensional construct shifts from an individualism versus collectivism perspective to an individualism and collectivism view (Early & Gibson, 1998). The optimum perspective on individualism-collectivism now represents I-C as points along a continuum (Triandis, 1990, 1995). Such a representation enables an account of cultures that exhibit both individualistic and collectivistic attributes because it makes these variables continuous and multidimensional. Individualism and collectivism can be manifestly different in type and quality across different cultures, as Triandis and Gelfand (1998) noted: "American individualism is different from Swedish individualism; likewise, the collectivism of the Israeli kibbutz is different from Korean collectivism" (p. 119). Any given culture may display aspects of both individualism and collectivism.

To further define these constructs researchers have specified two dimensions of I-C, one vertical and one horizontal (Singelis et al., 1995; Triandis & Gelfand, 1998). The horizontal dimension emphasizes equality, the vertical dimension emphasizes hierarchy. Together, these dimensions yield four distinct cultural patterns: vertical individualism (VI), horizontal individualism (HI), vertical collectivism (VC), and horizontal collectivism (HC). Individuals high on either VI or HI view the self as autonomous, but each cultural pattern perceives the relationship between self and other differently. VI emphasizes inequality and competition for resources among individuals, whereas HI holds that self and other share essentially equal status and access to resources. VC and HC define the self primarily as part of an in-group, but view self-and-other relationships within those in-groups quite differently. VC identifies rank, inequality, and status differences among in-group members, whereas HC depicts in-group self and other relationships as equal. The key difference concerns the tendency of vertical collectivists to either submit to or dominate the group, whereas horizontal collectivists seek neither such dominance nor submission (Triandis, 1995). At the level of the individual, these four types of cultural patterns may be characterized broadly based on the defining attributes of I-C and its vertical and horizontal dimensions (Singelis et al., 1995). Individualists perceive themselves as independent and either distinct from others (VI) or equal to others (HI). Collectivists view themselves as interdependent and either distinct from others (VC) or equal to others (HC).

I-C and vocational behavior. Regardless of whether they fall higher on the vertical or horizontal dimension, collectivists are theorized to subordinate their own personal goals, interests, and aspirations to those of their in-groups, whereas individualists would be expected to act based on their own self-interests and aims. Translated to vocational decision-making, I-C theory suggests that
individuals would differ in the extent to which their expressed occupational plans, aspirations, and goals are consistent with their own career-related attitudes and behaviors. The inherent character differences among the four I-C types also suggests that these groups would differ in terms of the values, or outcomes they seek to obtain through the work role.

As arguably the primary in-group, the family would further be expected within the framework of I-C theory to exert a particularly powerful influence on the behavior of individuals having a predominantly collectivistic orientation. A young adult in a Hispanic family, for example, might base her post-high school educational and work plans much more on her parents' wishes than on her own self-actualizing needs (Vondracek & Fouad, 1994). She may also maintain cardinal work values reflecting altruism and a high regard for social relations. Indeed, many writers have suggested (e.g., Fitzgerald & Betz, 1994; Leong, 1993) and some research indicates (Leong & Tata, 1990) that for individuals representing various non-White racial-ethnic groups, planning for and choosing an occupation more significantly involves preserving and contributing to the good of the family and culture, goals consistent with and reflective of a collectivistic orientation. This contrasts with European Americans who are thought to engage in occupational planning and choice behavior that may more significantly involve self-realization and personal achievement, goals and values consistent with an individualistic orientation (Hartung et al., 1996; Leong, 1993).

Purpose of the Study

In the present research, we examined whether and how I-C as an individual differences cultural context variable relates to occupational planning attitudes and behavior, work values, and family expectations. We were interested in determining whether individualists and collectivists, as determined by scores on a measure of I-C, differ significantly in the extent to which their expressed occupational choices fit with their attitudes about and experiences related to that choice as indicated by scores on a measure of occupational plans. Drawing from the I-C literature reviewed herein, we questioned if collectivists, more so than individualists, would indicate less fit and consistency between their stated occupational choices and their personal attitudes about and experiences related to those choices because their stated choices would perhaps reflect more upon what their in-groups expect of them rather than on their own interests, abilities, and aspirations.

We also wanted to determine whether individualists and collectivists differ significantly in the types of values they seek in work as indicated by their scores on a measure of work values. Based on I-C theory and research, we wondered whether collectivists, more so than individualists, would endorse work values such as altruism, associates, and supervisory relations that stress
relationship to others, whereas individualists, more so than collectivists, would espouse work values such as achievement, independence, and way of life that emphasize personal gains, interests, and aspirations.

Finally, we sought to determine if I-C relates significantly to the extent to which family work background and career expectations influence occupational decision-making and planning as determined by responses to a work and family questionnaire. We sought to ascertain whether collectivists, more so than individualists, would report that their families played a significant role in their own career decision-making processes.

Method

Participants

A total of 269 undergraduate college students (178 women, 90 men) enlisted from two major universities in the Midwest participated in the study. One individual did not indicate their gender on the demographic questionnaire provided. Students ranged in age from 17 to 44 years (M = 19.2 years) and identified their ethnicity as African American (33.0%), European American (35.9%), Asian American (18.5%), Hispanic American (7.4%), and other or unspecified (5.2%). The majority of participants indicated that both they (79.3%) and their parents (67.4%) were born in the United States and that they held U.S. citizenship (79.3%). The remainder of the sample who indicated their citizenship status were either U.S. permanent residents (5.6%) or international students (4.1%). Most participants identified their grade level as freshman (73.7%), with the remainder of the sample comprising sophomores (12.6%), juniors (9.3%), and seniors (2.2%). Six individuals did not indicate their grade level. A small number of participants (n = 34) identified their mothers' occupation as homemaker, whereas the remaining majority of participants who identified their mother's occupation indicated that their mothers worked outside the home in a broad range of occupations from skilled labor to professional/managerial positions. Fathers' occupations were reported to range from none (n = 10) to a wide scope of occupations across varying skill, educational, and supervisory levels.

Measures

Individualism-collectivism. The 32-item INDCOL scale (Singelis et al., 1995) was used to measure cultural value orientations of individualism and collectivism. The INDCOL scale asks respondents to indicate on a five-point Likert scale their level of agreement or disagreement with 32 statements such as: "I usually sacrifice my self-interest for the benefit of my group." Eight statements measure vertical individualism (VI), eight measure horizontal individualism (HI), eight measure vertical collectivism (VC), and eight measure horizontal collectivism (HC). Scoring is accomplished by summing the items for each subscale, with some items reverse-scored. Scores for each subscale may range from 8 to
Higher scores purport to indicate higher levels of the associated cultural value orientation.

Singelis et al. (1995) reported coefficient alphas of .82 (VI), .81 (HI), .73 (VC), and .80 (HC). Coefficient alphas for the INDCOL subscales in the present study were .76 (VI), .81 (HI), .67 (VC), and .72 (HC). Support for the construct and concurrent validity of the INDCOL Scale has been reported (Singelis et al., 1995; Soh & Leong, 2002).

**Occupational plans.** Degree of fit between occupational choice and self-identity was operationally defined by scores on the 23-item Occupational Plans Questionnaire (OPQ; Hershenson, 1967). The first OPQ item instructs respondents to describe the occupation or type of work they presently think they will enter. All subsequent items constitute multiple choice questions about (a) commitment to a stated occupational choice (5 items, maximum score = 23), (b) knowledge of and experience in that occupation (5 items, maximum score = 28), (c) consistency of the occupation with self-perceived abilities, values, and interests (5 items, maximum score = 28), (d) anticipated potential in the occupation (2 items, maximum score = 9), (e) alternative choices (3 items, maximum score = 17), and (f) the significance of the occupational role in one's life (2 items, maximum score = 9). Hershenson (1964) devised a scoring scheme for the OPQ that assigns higher values to item-response choices indicating a better fit between respondents' self-perceived abilities, interests, and identities and their occupational plans. Subscale and total scores can be reported for the measure with a maximum possible total score of 114. Internal consistency coefficient alphas for the OPQ have been reported ranging from .68 (Savickas, Carden, Toman, & Jarjoura, 1992) to .83 (Hershenson, 1967).

**Work values.** The significance of potentially satisfying aspects of work was measured with the Work Values Inventory (WVI; Super, 1970). Using a five-point Likert-type scale, respondents rate the relative importance of 45 value statements comprising 15 subscales of three items each: Achievement, Altruism, Aesthetics, Creativity, Independence, Intellectual Stimulation, Economic Return, Management, Prestige, Security, Surroundings, Supervisory Relations, Associates, Way of Life, and Variety. Three composite scales represent the averages of scores on specific WVI scales and include: Intrinsic Values (the average of Creativity, Achievement, Way of Life, Aesthetics, Independence, Variety, Altruism, and Intellectual Stimulation subscale scores), Extrinsic Values (the average of Management, Surroundings, Security, Prestige, and Economic Return subscale scores); and Concomitant Values (the average of Supervisory Relations and Associates subscale scores). The Concomitant Values composite scale was not used in the present analyses.

Completing the WVI requires about 15 minutes and it can be
easily hand scored. Scores range from 3 to 15 for each WVI scale with higher scale scores suggesting that the respondent places greater significance on the corresponding work value. The WVI manual provides normative data for converting scores to percentile ranks. The manual reports test-retest reliabilities ranging from .74 to .83 for two weeks. Super (1970) reported evidence for the content, construct, and concurrent validity of the instrument. Coefficient alpha for the WVI based on the present sample was .92.

Family expectations. To assess family work background, expectations of, and involvement in an individual's work and career planning, we developed a nine-item Work and Family Questionnaire. Five items asked respondents to place a check mark next to the statement that best indicated their answer to the question. These five items asked about parents' educational levels and years of employment and about the family's career or work expectations of each participant. Four items allowed for open-ended responses. Two of these four items asked questions about family influences on occupational decision making and career planning. The other two items asked the respondent how they have decided about their work and career plans and what factors they included in their decision.

Procedure

Participants responded to a demographic questionnaire and all measures in group settings. Participation was voluntary and not linked to course credit or otherwise externally motivated. All participants read and signed an informed consent form that explained the purpose and procedures of the study. The demographic questionnaire asked participants to indicate their gender, age, year in school, ethnicity, parents' occupations, and whether or not they were born in the United States. Ordering of the instruments for all participants was as follows: demographic questionnaire, Work and Family Questionnaire, OPQ, INDCOL, and WVI. Instruments were so ordered for convenience and standardization across participants.

Results

Table 1 contains the mean scores and standard deviations for the INDCOL scale, OPQ, and WVI total sample. One-way analysis of variance procedures were used to test for significant mean score differences on these measures by gender and ethnicity. Results of these analyses indicated only a few significant gender and ethnic group differences on particular INDCOL, OPQ, and WVI subscales (complete ANOVA data may be obtained from the first author). Men scored significantly higher on VI \((M = 26.64, F[2, 265] = 19.88)\) and on OPQ Knowledge \((M = 10.81, F[2, 266] = 6.64)\) than did women on these subscales \((M = 22.74 \text{ and } M = 9.19, \text{ respectively})\). Women scored significantly higher on the WVI Achievement \((M = 12.85, F[2, 265] = 5.04), \text{ Surroundings } (M = 12.26, F[2, 265] = 5.16), \text{ Way of Life } (M = 13.59, F[2, 265] = \text{ respectively})\).
5.38), and Altruism ($M = 12.99, F[2, 265] = 13.95$) subscales than did men ($M = 12.09, M = 11.50, M = 12.94, and M = 11.49$, respectively). Hispanic Americans scored significantly higher on the OPQ Commitment subscale ($M = 19.15, F[4, 257] = 4.12$) than did African Americans ($M = 18.84$), European Americans ($M = 17.46$), Asian Americans ($M = 17.04$), or participants of other ethnicity ($M = 18.33$). African Americans scored significantly higher on the OPQ Anticipated Potential subscale ($M = 7.07, F[4, 254] = 3.51$) than did Hispanic Americans ($M = 7.00$), European Americans ($M = 6.10$), Asian Americans ($M = 5.98$), or others ($M = 6.83$). African Americans also scored significantly higher on the WVI Security ($M = 13.16, F[4, 256] = 5.37$) and Aesthetics ($M = 10.01, F[4, 256] = 4.33$) subscales than did Hispanic Americans ($M = 12.30$ and $M = 9.30$), European Americans ($M = 11.93$ and $M = 8.42$), Asian Americans ($M = 11.78$ and $M = 9.42$), or others ($M = 12.83$ and $M = 9.00$) on these respective subscales. No significant ethnic group differences were found on any of the INDCOL scale scores. Given these few significant differences and their relatively low magnitude, we decided to combine the data for subsequent analysis.

Table 1 also contains the zero-order correlation coefficients between the INDCOL subscale scores and the OPQ and WVI scales. With the exception of VI and HC ($r = .04$), all intercorrelations for the INDCOL subscales were significant and of a magnitude similar to those found by Singelis et al. (1995) and Soh and Leong (2002). Our first research question dealt with whether IC relates significantly to the fit and consistency between one's expressed occupational choice and concomitant attitudes about and experiences related to that choice. A review of Table 1 reveals 7 significant product-moment correlations out of a possible 28 pairings between the INDCOL scale and OPQ scores. OPQ Commitment related significantly and positively with only HC ($r = .14, p \leq .05$). OPQ Consistency correlated positively and significantly at the $p \leq .05$ level with HI ($r = .16$), VC ($r = .13$), and HC ($r = .14$). OPQ Anticipated Potential correlated positively with VC ($r = .15, p \leq .05$), and OPQ Alternative Choices correlated inversely with HI ($r = -.16, p \leq .01$), whereas OPQ Significance correlated positively with HI ($r = .14 p \leq .05$). The effect sizes of these significant relationships proved very small, reaching a maximum value of .02. No significant relationships were found between INDCOL scale scores and scores on either the OPQ Knowledge subscale or the OPQ Total scale. These data indicate at best a weak relationship between cultural value orientation as defined by I-C level and particular aspects of occupational planning.

Our second research question dealt with whether I-C relates significantly to work values. Examining Table 1 indicates that 51 out of 68 correlation coefficients derived from pairings of the INDCOL and WVI subscales reached significance at the $p \leq .05$ level.
or better. VC correlated significantly at the $p \leq .01$ level and more strongly than did the other INDCOL subscales with Creativity ($r = .26$), Surroundings ($r = .26$), Security ($r = .27$), Aesthetics ($r = .21$), Prestige ($r = .32$), Variety, ($r = .23$), Altruism ($r = .36$), Intrinsic Values ($r = .36$), and Extrinsic Values ($r = .33$). HC correlated significantly and more strongly than did the other INDCOL subscales with Achievement ($r = .33$) and Associates ($r = .35$). HI correlated significantly and more strongly than did the other INDCOL subscales with Supervisory Relations ($r = .22$), Way of Life ($r = .29$), Independence ($r = .32$), Economic Return ($r = .22$), and Intellectual Stimulation ($r = .23$). VI correlated significantly and more strongly than did the other INDCOL subscales with Management ($r = .28$). These findings suggest that I-C level relates differentially to the types of values individuals seek through work, however the effect sizes of these coefficients also proved small, ranging from .04 to .12.

Results pertaining to our third research question, which concerned whether I-C relates significantly to family work background and career expectations, will be available from the first author pending future analysis of these data.

Discussion

Investigating cultural context variables vis-a-vis career behavior remains a primary research need in vocational psychology (Fouad, 1993; Leong, 1997; Swanson & Bowman, 1994; Vondracek & Fouad, 1994; Walsh & Srsic, 1995). This need extends particularly to increasing empirical knowledge about racial and ethnic minority group members' vocational behavior and how their behavior might differ from that of European Americans, who have been overrepresented in vocational theory and research (Fitzgerald & Betz, 1994). Building such knowledge should assist researchers and practitioners to more adequately comprehend how cultural factors, such as a client's unique value system, affects vocational planning, exploration, decision-making behavior, and work values (Fouad, 1993). Toward this end, we examined the extent to which cultural value orientation relates to the occupational planning behavior, work value preferences, and family experiences of individuals from various racial-ethnic groups in the United States.

Regarding the first research question, the present data indicated significant albeit weak relationships between particular components of the occupational planning process and some I-C types. Commitment to stated occupational choice related significantly and positively to HC, suggesting that having a cultural value orientation that advances relational equality and interconnection among in-group members relates to feeling more invested in one's stated occupational choice. This may prove particularly true for Hispanic Americans who scored significantly higher on HC than did any other racial-ethnic group in the study. Consistency of expressed occupational choices with self-perceived
abilities, values, and interests related significantly to HI, HC, and VC but not to VI. This relationship, although of low magnitude, proved strongest between occupational planning consistency and HI. These results indicate that individuals across all value orientations except VI, which emphasizes both hierarchy and independence, generally perceive their expressed occupational choices as reflective of their self-concepts. This relationship appears strongest for individuals who live in a cultural context that emphasizes relational equality and autonomy. Anticipated potential in a stated occupational preference related positively and significantly to VC. Persons from cultures that emphasize hierarchy and authority within relationships and interdependence among in-group members also expressed that they believe they will advance further in their stated occupations and rise to the top relatively quickly after their training for the occupation is complete. For African Americans, who scored significantly higher on OPQ Anticipated Potential, this situation may be especially true. An inverse relationship was found between having alternatives to an expressed occupational choice and HI. This finding indicates that HI types tend to express one occupational choice and consider few or no alternative occupations. HI also related significantly and positively to significance of the occupational role in one's life, suggesting that horizontal individualists tend to think often about their future occupational plans and expect to derive a great deal of satisfaction from the work role once they achieve their stated occupational plans. All of these significant findings relative to various occupational planning dimensions and I-C types are greatly tempered by the low values of the correlation coefficients, thus calling into question the practical significance of these relationships.

Numerous links were found between I-C types and different values sought in work. The magnitudes of these relationships ranged from low to moderate and may therefore be of greater practical significance than the findings relative to occupational plans and I-C. Significant positive relationships were found between VC and every one of the work values measured by the WVI, between HC and all but two measured work values, and between HI and all but four values. The fewest significant relationships (n = 6) emerged between VI and the work values measured by the WVI. One way to consider these data is to identify and interpret the strongest relationships across I-C types. VC correlated more strongly than any of the other I-C types with Creativity, Surroundings, Security, Aesthetics, Prestige, Variety, and Altruism, as well as with the WVI composite scales of Intrinsic Values and Extrinsic Values. VC thus related more strongly than other I-C types to a desire for a range of work values from contributing beauty and to the welfare of others to being inventive, varying jobs and tasks, having security and a pleasant work environment, and gaining respect from others. HC correlated more strongly than any of the other I-C types with
Achievement and Associates, suggesting that this type most values a sense of accomplishment in work and co-worker relationships. Of the I-C types HI correlated most strongly with Supervisory Relationship, Way of Life, Independence, Economic Return, and Intellectual Stimulation, whereas VI correlated most strongly of the I-C types with Management. HI types seem more than others to want opportunities in work for autonomy, financial reward, and equality and fairness in relationship with others. VI types seek most to have work that allows them to have authority over other people. These findings generally reflect characteristics ascribed to individualists and collectivists (cf. Triandis, 1995).

Another way to interpret the relationships found between work values and I-C is to consider the strongest relationships within each I-C type. Distinct work values correlated \( \geq .30 \) with VC (Achievement, Prestige, Altruism, Intrinsic, Extrinsic), HC (Achievement, Associates, Altruism, Intrinsic), and HI (Independence). No values correlated \( \geq .30 \) with VI. Identifying the three highest individual values for each I-C type yields the following potential core values in order of importance: VC (Altruism, Prestige, Achievement); HC (Altruism/ Associates [tied], Achievement); HI (Independence, Way of Life, Intellectual Stimulation/ Surroundings); and VI (Management, Prestige, Independence/ Economic Return). For African Americans, Security and Aesthetics may be particularly salient because this group scored significantly higher than did individuals of other racial-ethnic groups on these values.

On balance, the findings of the present study differ from those reported in a prior investigation (Hartung et al., 1996) in that more significant relationships were found between aspects of occupational planning behavior and work values relative to dimensions of I-C. The present findings suggest I-C can be used to identify relationship patterns particularly in the realm of work values. I-C represents a cultural context variable of potential use in vocational research and practice.

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Table 1

Total Sample Means, Standard Deviations, and Intercorrelations of INDCOL Subscales and Subscales of OPQ and WVI

<table>
<thead>
<tr>
<th>INDCOL Scale</th>
<th>M</th>
<th>SD</th>
<th>VI</th>
<th>HI</th>
<th>VC</th>
<th>HC</th>
<th>r</th>
</tr>
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<tbody>
<tr>
<td>INDCOL</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>VI</td>
<td>24.06</td>
<td>5.10</td>
<td>(.76)</td>
<td>.15*</td>
<td>.12*</td>
<td>.04</td>
<td></td>
</tr>
<tr>
<td>HI</td>
<td>31.98</td>
<td>4.55</td>
<td>(.81)</td>
<td>.22**</td>
<td>.15*</td>
<td>.04</td>
<td></td>
</tr>
<tr>
<td>VC</td>
<td>28.82</td>
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Note. Cronbach's alpha reliabilities for internal consistency of the INDCOL scale are reported in parentheses. VI = Vertical Individualism; HI = Horizontal Individualism; VC = Vertical Collectivism; HC = Horizontal Collectivism; OPQ = Occupational Plans Questionnaire; WVI = Work Values Inventory. r = Pearson product-moment correlation coefficient. Significant correlations of highest magnitude highlighted in boldface type.

*p < .05
**p < .01
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