Individualism and Interdependence: Tapping into the Third Self-Construal

by

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ABSTRACT

Traditionally, when it comes to describing an individual's self-construal much of the focus is on its interdependent and independent aspects or dimensions. Individuals with a more independent self-construal are generally more focused on their own goals and driven by their needs and are usually autonomous from other individuals. Individuals with a more interdependet self-construal tend to be more group focused and understand and play their role in group settings. Although these dimensions of the self-construal have been very well established many have suspected that an individual's self-construal may not be as unidimensional as previously believed. This study finds evidence to support that an individual's self-construal is multidimensional containing both collectivistic and individualistic tendencies varying in strength and influence.

I. Introduction

In a society where one is now able to learn about different cultures, customs, and beliefs with just a click of button, we are coming to find out that there are differences among the cultures one observes on a computer or television screen as opposed to the culture they currently find themselves in. Although this difference may not be as salient as it is with other cultures, one does note a difference, nonetheless. This then poses the question of whether an individual who finds themselves in a country very much different from the one they were raised in is changed by the values, beliefs and customs of their new country. If we as human beings are social beings, then we can infer that we must be able to maintain multiple beliefs from different cultures within ourselves to thrive in different social environments. In our predisposition for adaptation, our mindsets and beliefs from different cultures are blending together into newly attained cultural values. Furthermore, this adaption to different cultures could lead an individual to create a new sense of self with a new set of beliefs. This new self is not stoic, but in a constant flux, allowing an individual to acquire and possess a multicultural blend of different set of beliefs and cultural values.

This then leads us to ask three very important questions regarding an individual's ability to adapt. Ones it possible for an individual to be multidimensional in terms of the cultures they have integrated within themselves and is it possible for one to tap into these varying degrees of multidimensionality? Two could a measure be created to accurately measure the presence of these multiple cultural dimensions at varying degrees? and three do individuals who possess these cultural dimensions at different levels exhibit behavioral

differences form each other?". This study sets out to answer these questions as well as provide further evidence for the existence of multicultural individuals.

Literature Review.

Questions such as these are what piqued the interest of researchers who would later pave the road for all cultural research to come. One of these said researchers was Geert Hofstede who, in 1980, published "*Cultures Consequences: International differences in work-related values*" and introduced six new cultural dimensions (power-distance, uncertainty avoidance, individualism/interdependence, masculine/feminine, time perspective, and indulgence/restraint) into the cultural research field. Although Hofstede wasn't the first researcher to propose a difference amongst cultures, he was however the one who examined cross country differences and was able to successfully map these differences into overarching patterns (1980). These overarching patterns would lay the foundation for much of the cultural research that is being conducted to this day, especially the individualism/interdependence dimension.

This dimension was a topic of interest as it proposed that there were country-level differences of how an individual perceived their family and friends in relation to themselves and that this perception influenced how our attitudes and behaviors. Hofstede found that individuals who were more individualistic were more likely to be autonomous from other individuals in their groups and more likely to express their unique self (1980). In addition, Hofstede found another group of individuals who were more collectivistic were more likely to focus on their role in their social group and emphasize a group harmony (Hofstede, 1980).

Although Hofstede's work did find evidence that cultures do differ among one

another, his work didn't explain what happened when individuals encountered other cultures. This gap was left to be filled by other researchers such as Markus, Kitiyama, LaFramboise, Benet-Martinez, Heine and Lehman who would build on Hofstede's work to help further the understandings of cultural selves. Of the researchers listed above, Markus and Kitiyama were amongst the first to research individualistic and collectivist differences between Western and Eastern societies outside of the workplace, and how these cultural differences had a direct influence on an individual. What Markus and Kitiyama found was that these cultures affected every aspect of an individual from their approach and perceptions of situations, goals, support systems, and decisions outside of the workplace (1991). Markus and Kitiyama (1991) concluded that these cultural differences could be categorized two self-construals: interdependent and independent.

Markus and Kitiyama (1991) defined the independent self-construal as emphasizing self-actualization, and the realization and expressing of one's distinct potential. An individual who holds an independent self-construal is more likely to view his or her own needs and goals as most important. They are guided by their goals rather than the expectations of others and believe that one as an entity is unique and autonomous from one another (Markus & Kitiyama, 1991). By contrast, the interdependent self-construal emphasizes a connectedness to groups, one's role within the group, and the changing of behaviors and emotional responses in order to maintain harmony amongst the group (Kitiyama & Markus, 1991). Since Markus and Kitayama first proposed these two self-construals in 1991, they have been validated, and tested (Cross, Hardin, & Swing, 2009; Csikszentmihalyi & Asakawa, 2016), and one could

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argue that these two construals, in addition with Hofstede's, work have laid much of the theoretical groundwork for much of cultural research that exists today.

With Markus and Kitiyama's work helping to better operationalize the cultural difference between countries, many social scientists began to fill the gap left by Hofstede's work and began to study the interaction between cultures and how this interaction affects an individual. Through this work three prominent theories arose: Cultural Frame Switching (LaFramboise et al., 1993), Bicultural Identity Integration (Benet-Martinez, 2004) and Cultural Blending (Heine & Lehman, 2004). The first of these theories proposed by LaFramboise and colleagues was in 1993 when they decided to follow bilingual individuals who were immigrating from a more collectivistic culture to more independent culture. What they discovered was that as individuals come into contact with a culture much different than their own, there is a clash of cultures at first, but would result in almost always the adoption of the new culture (LaFramboise et al., 1993). However, what they found was that although the individual would adopt the new self-construal they would only ever present one or the other depending on the situation the individual was confronted with. LaFramboise et al. (1993) would determine that the key to identifying which self-construal would manifest in a given situation was a combination of language and socio-cultural context. This meant that if an individual was presented with a situation where the language of the collectivistic culture was being used the collectivistic self-construal would manifest and vice versa (LaFramboise et al., 1993).

Cultural Frame Switching was later supported by Luna, Torsten and Larua (2008), and Ringberg, Luna, Reihlen and Perrachio (2010), who found similar results when they discovered that bicultural bilingual individuals possessed the capacity to switch between

mental frames when cued by a specific language. However, they added to LaFramboise et al.'s original findings by discovering that this cultural frame switching only occurred with individuals who were bicultural and bilingual. Luna et al. did not find similar effects with individuals who were bilingual, but not bicultural (2008). In this study bicultural individuals were operationalized as individuals who had experienced living in both cultures and were familiar with the customs of both. As well as being integrated and having constant interaction with both cultures.

While LaFramboise et al.'s cultural frame-switching theory (1993) does provide further evidence to support the idea that individuals possess the ability to host two self-construals within them, LaFramboise et al.'s work only looks at the juggling act that is performed with the two self-construals. This leaves a gap in the literature of explaining the variance seen in individuals who do not necessarily juggle, but also integrate the parent culture into their own while maintaining a strong sense of self (Benet-Martinez et al., 2004). Researchers began exploring more into the cross-cultural literature to further improve upon LaFramboise et al.'s original work. This led to the rise of the second theory: the theory of Bicultural Identity Integration (BII) (Benet-Martinez et al., 2004).

Benet-Martinez et al. (2004) sought to explore the under researched topic of bicultural identity by studying bicultural Chinese Americans in an attempt to target the differences in the Bicultural Identity Integration (BII), acculturation stress, and bicultural competence. What she found was that bicultural individuals' variations on the BII was not uniform as much of the literature had previously shown. The Chinese culture was their origin culture which was experienced at home and with family and the American culture was the host culture that was experienced in their everyday lives outside of their

home. Since the Chinese individuals were more collectivistic when they began seeking social connections a shift in self-contruals began.

Many of the Chinese individuals in the sample began adopting independent self-construal values, which in turn made them much less collectivistic than before. However, these individuals did not categorize themselves as possessing an independent self-construal, but they had begun to integrate some of the values from their new cultural surroundings while maintaining their collectivistic beliefs. Benet-Martinez et al.'s (2004) work supports the idea that self-construals aren't as dichotomous as we originally have perceived them to be. Individual's self-construals aren't necessarily fixed but more on a continuum that is affected by the groups we surround ourselves with (Na et al., 2010).

Benet-Martinez et al. (2004) finding that there were individuals who, instead of switching between self-construals, began adopting the new host self-construal and integrating it into their sense of self her work was just the beginning of integration theory. Heine and Lehman shortly followed up after Benet-Martinez et al. in 2004 to further refine her work and propose their own theory of cultural blending and conflict: Cultural Blending. Heine and Lehman's (2004) work is based on two cultures, Japan's and Canada's, and follows exchange students who through their schools were able to spend a semester in the corresponding country. Heine and Leman's reasoning for choosing these two countries is that Japan is a highly collectivist country that emphasizes high self-criticism while Canada, on the other hand, is an individualistic country that promotes self-esteem (Heine & Lehman, 2004).

What Heine and Lehman discovered was that, regardless of the participant's country of origin, the host culture seemed to influence the individual's self-construal.

More specifically, they found that Canadians self-esteem levels significantly decreased when studying in Japan while on the other hand Japanese students' self-esteem levels increased in Canada, although not significantly (Heine & Lehman, 2004). Although Heine and Lehman's results of Japanese students rise in self-esteem was not significant, they discovered that the factor that mediated whether an individual's self-esteem rose was openness to the host culture (Heine & Lehman, 2004). This meant that if an individual was receptive to the culture and its practices, then they would benefit from the society and see a change in their own self-esteem. This further provided evidence that an individual's self-construal is malleable and receptive to change based on the socio-cultural context that they are exposed to, as well as their openness to said culture.

The research that currently exists does tend to support a multicultural individual who can't necessarily be categorized into interdependence or independence, but more so as a mixture of the two. This could be for a myriad of reasons outside of the situations that Benet-Martinez et al. (2004), and Heine and Lehman (2004) came across in their works. Thus, the literature does show evidence that it would be better to look at the way an individual's self-construal manifests itself as possibly containing both interdependent and independent self-construals at varying degrees. I propose that individuals who may have initially felt a clash between the parent and the host cultures may have learned to manage both cultures and developed a multicultural subgroup combining both the collectivistic and independent self-construals.

Hypotheses.

The purpose of the current study is to explore and test if individuals can vary in their expression of both self-construals at the same time. It addresses the questions about

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whether multiculturalism exists within individuals, and if so, can a new measure that accurately assesses multiculturalism be constructed? Multiculturalism will be tested utilizing an adapted measure of Interdependence and Independence by Triandis, Chan, and Bhawuk (1995). This measure will be utilized to first test if both self-construals exist within our sample. It is believed that individuals will have both constructs but will vary in their expression of both. For example, I expect that individuals who are strong on both constructs will behave differently than those who are only strong on one or not strong on either. Specifically, I hypothesize that individuals who score high on both constructs will be less likely to answer in the extreme scores (1 and 5) on the measure items compared to those who are only strong on one construct or not strong on either. I reason that these individuals are more likely to equivocate because both constructs within them.

In addition, I hypothesized that those who are multicultural will take longer to deliberate on a response compared to those who are independent and collectivistic, due to the contradicting natures of the two self-construals. The items presented should bring elements of both self-construals in those who are multicultural. The contradicting nature of the two self-construals was expected to cause the individuals to take longer to deliberate on their answers causing a delay in response. By comparison, those individuals who possess a more dominant self-construal were predicted to not delay as long to respond to the items.

II. Methodology

Participants

Three hundred fifty-one college students ranging in age between 18 to 54 years (M = 18-24; SD = .287, Female = 272) were recruited through Texas State University's SONA system as well as through an email sent to seminar courses throughout the university. Additionally,43.9% identified as white, 36.8% as Hispanic/LatinX, 12.5% as African American, 2.3% as Asian, .3% as American Indian or Alaska Native, .6% Native Hawaiian or Pacific Islander and 1.4% as other. All participants were compensated with course credit for their corresponding class and thanked for their time.

Procedure.

A survey comprised of multiple measures was distributed through Qualtrics utilizing Texas State's SONA system. The participants of this survey were comprised of those registered for an Introductory to Psychology course that has integrated SONA system participation into their course curriculum. The individuals who participated in the study were able to access the survey link through SONA which led them to a consent form where they first had to provide consent to participate in the study. After participants provided consent, they were then given an hour to complete the survey.

Although none of participants took the entire hour to complete the survey, all participants were still provided with an hour. This was to allow for variation to occur in a part of the survey where scenarios where presented which, in theory, would've shown some variance between our groups of interest. After participants completed the survey they were thanked for their participation and credit was automatically awarded through a

redirect link found at the end of the survey.

Measures.

For the proposed survey to fully capture the presence of both construals and better build a profile of an individual who may demonstrate strengths in both interdependence and independence construal, multiple measures were utilized in this survey. These measures included: (1) Triandis et al's (1995) Interdependence/Independence measure adapted for this study, (2) an adaptation of social support measures, (3) a social desirability measure, (4) an openness measure and (5) an acculturation measure.

Interdependence/Independence Measure. To test for this third form of self-construal, an adaptation of Triandis et al. (1995) measure of Interdependence and Independence was utilized. The reason for adapting this measure was because Triandis et al. did create a scale that allowed interdependence and independence to be tapped into separately, as opposed to individuals only being able to score highly on one end or the other of the scale. This scale included items such as: "Before making a major decision I discuss it with my family", "I am self-reliant, so I can do my own thing independently from my family" and "If my sibling flunks college, it is not my business". However, upon taking a closer look into Triandis et al.'s measure it had its shortcomings. Although Triandis et al. tested his measure on a large sample size they found an alpha of .5, well below the acceptable alpha level of .7.

Using Triandis et al.'s measure as a base, new questions were adapted or modified to reflect a more contemporary view and to increase internal validity. Twelve questions were removed from the original survey which brought the total questions down to 14 from 26. This was done in order to increase the alpha and create a more reliable measure

of multiculturalism. Of the questions that remained six measured interdependence and eight measure independence.

This modified questionnaire was administered. To further test that individuals with both self-construals exist and exhibit behavioral differences from the previous self-construals, response times were recorded. The Survey Monkey survey software was chosen for this reason as it allowed not only measure responses, but also response times. This allowed for the direct analysis of response times of those found to be multicultural from those who demonstrate dominance of one self-construal.

Social Desirability Measure. Due to the nature of the questions that are being asked the Marlow-Crowne version of the Social Desirability Scale (1960) was utilized to ensure that responses to the collectivistic/individualistic scale were reflective of the self-construals and not social desirability. The 13-item shortened version of the original Social Desirability Scale was utilized. This scale which has 20-items less than the original scale yet maintains a Cronbach's alpha of .76, which is well above the acceptable range of reliability. This scale contains items such as: "I am always courteous, even to people who are disagreeable", "There have been times when I was quite jealous of the good fortune of others" and "There have been times when I felt like rebelling against people in authority even though I knew they were right".

Social Support Measure. A social support measure was created and added to the survey to help better illustrate the extent of the social network that individuals who are multicultural might possess. This measure allowed for the inclusion of individuals who were members of the community or friends, as well as family members. This adapted scale contained four items such as: "Select the Individuals below with whom you have a

familial, friendship or acquaintanceship relationship", "With whom of the following can you really count on to listen to you and advise you when you need to talk?" and "Whom can you really count on to be dependable to do things for you when you need help?". For each of these four items, participants checked marked all the individuals listed that met the item's criteria. The check box options range from their spouse or partner to neighbor, church member and all the way to third friend. This measure was scored using a frequency count based on how many boxes individuals checked by items.

Independent Self-Construal Measure. A secondary Independent self-construal measure was added to test the convergent validity of the adapted Triandis et al. (1995) measure of Interdependence/Independence. This measure was proposed by Luo, Hogan, Yeung, Sheng, and Aye (2014) and includes 4 items measuring the independent self-construal and four items measuring the interdependent self-construal. Items on this scale include: "It is important for me to maintain harmony with my group", "Even when I strongly disagree with group members, I avoid an argument", and "I consider myself as a unique personal separate from others". Luo et al. (2014) also found that Cronbach's alpha for the independent and interdependent scale was .72 and .74, respectively, which fall within the acceptable parameters for internal consistency.

Openness Measure. The openness measure that was utilized in this study was adapted from Morizot's Big Five Personality Trait Short Questionnaire (2014). This measure was included as it had been proven before in the literature that individuals who are more independent tend to be more open (Markus and Kitiyama, 1993). This measure will be utilized to determine if individuals who are multicultural share this trait. The adapted scale contains 13 items such as: "Is not really interested in different cultures,

their customs and values", "Likes to reflect, tries to understand complex things" and "Is curious about many different things". These questions were measured on a 5-point Likert scale ranging from totally disagree to totally agree. Content validity for this shortened version of the Big Five Personality scale was acquired by running a correlational analysis with their corresponding scales from the NEO-Personality Inventory-3 (NEO-PI-3). (McCrae & Costa, 2) Upon running this correlation it was found that the Openness subscale had a content validity of .949 and a Cronbach's alpha of .712 which falls within the acceptable range for internal reliability.

Acculturation Measure. The acculturation measure that was utilized for this study was Marin et al.'s Acculturation Scale (1987). This scale was included to test whether those who are multicultural in their self-construal are also more acculturated. This scale contains 13 items such as "Your close friends are?", "You prefer going to social gatherings/parties at which the people are?" and "In what language(s) are the T.V. programs you usually watch?" These questions were measured utilizing a 5-point Likert scale ranging from only Spanish or only Hispanic to only English or All Non-Hispanics. The reliability for this measure is broken up by its subscales. The alpha levels for these three subscales are .83 for Language Use, .93 for Media Use, and .84 for Ethnic Social Relations.

III. Results

Preliminary analyses. Reliability analyses were run on the two subscales (Independent and Interdependent) of the Luo et.al. measure, the Openness scale, the three Acculturation subscales and the Social desirability scale. The reliability analyses yielded alphas for each of the following scales. An alpha of .65 was obtained for the interdependent subscale and .65 for the independent subscale of the Luo et al. measure. The Openness scale had an alpha of .61. The three Acculturation scales had alphas of .90 for Language Use, .83 for Media Use, and .79 for Ethnic Social Relations. Lastly the alpha for the social desirability scale was .57. Due to the reliability from the social desirability scale being so low this factor was excluded from further analyses. Factors from the composites of the items for each of the scales were then created and are listed below in Table 1.

Reliability and Validity Tests of the Modified Triandis scale. A factor analysis was conducted on the modified Triandis et al. scale using a direct oblimin rotation with a delta set at .2 and a fixed number of factors to extract was set at 2. This factor analysis resulted in the removal of 3 questions from the questionnaire due to double loading. Two distinguishable subscales (Interdependent and Independent) appeared and were identified based on item loadings and the scree plot (see Table 2). Reliability analyses were then conducted on each of the subscales. The Independent subscale of items had an alpha of .62. The Interdependent scale of items yielded an alpha of .62. Two factors based on these item loadings were then created. The two factors were called Independence and Interdependence. Although their alphas were below the conventional acceptance levels of .70, these factors were kept for analyses purposes because of their theoretical

significance. Descriptive statistics for these two factors are listed in Table 2. A follow up

correlational analysis was conducted in order to test the orthogonality of these two

factors. A significant negative correlation of $r = -.251$, $p < .001$ was found.

In addition, a validation test was conducted on the newly formed sub scales from

the modified Triandis et al. scale which the corresponding subscales of the Luo et al.

measure which purport to measure the same things. The results from these tests were that

both interdependent scales from the modified Triandis scale and the Luo et al. were

significantly and positively related ($r = .345$, $p < .001$). However, the independent sub

scales from the modified Triandis and the Lua et al. subscales were negatively correlated

and nonsignificant ($r = -.05$, $p = .359$).

Tests of the hypotheses. My first hypothesis stated that a measure could be

created to identify individuals who possessed both the self-construals at varying degrees

at once. The factor analyses on the modified Triandis scale yielded two factors on which

items separated into two distinctly identifiable factors. The scree plot noted two factors

and the factors, created by composites of two sets of items were orthogonally correlated.

The factor analysis provided evidence that supported this first hypothesis. However, the

reliability of the two constructs were .623 and .622 respectively.

To further test the first hypothesis that this measure could identify individuals

who possessed varying degrees of these construals, participant's scores on both the

interdependent and independent sub scales of the modified Triandis measure were split

into either a high or low groups based on a median split of each subscale. The median

split score for interdependence was 3.8 and the median split score for independence was

2.38. This helped to categorize individuals into four groups: a high interdependence/high

independence, two groups who were high on one but low on the other factor, and a fourth

group who was low on both factors. The results of this categorization created four

groups: 47 individuals fell into the low interdependence/low independence group, 100

individuals were in the high interdependence/low independence group, 121 fell into the

low interdependence/high independence and 69 fell into the high interdependence/high

independence group. For further information about the distribution of individual's scores

and median splits refer to *Figure 1*.
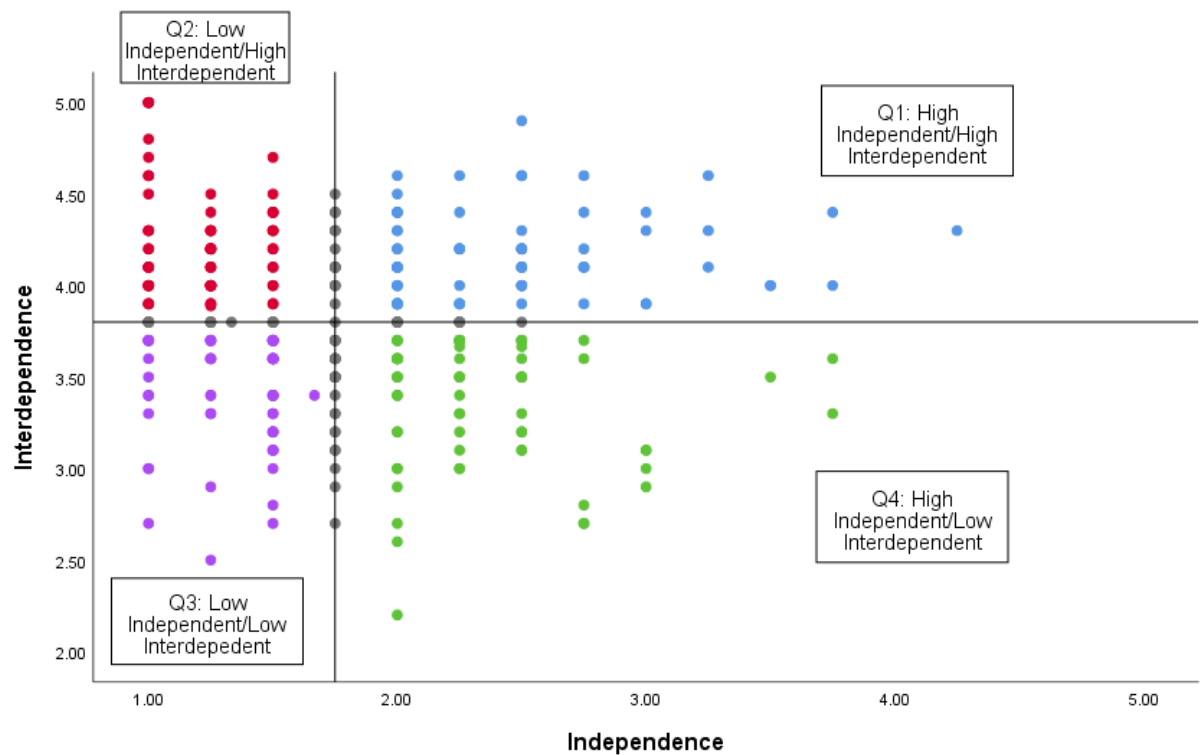

Figure 1. Distribution of Individuals based on Median Splits.

An analysis of variance was then conducted to determine if there were any

differences among the four groups on extreme scores (1 or 5 on the Likert scale).

Extreme scores or responses would identify individuals (high on one construct and low

on the other) who would most strongly agree or disagree with the independent and

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interdependent items. Thus, the high interdependence/low independence and high

independence/low interdependence individuals, I reasoned, would be more likely to agree

with the strongest, most extreme responses to the items. However, individuals high on

both construals, by contrast, would equivocate, be pulled by both tendencies and settle for

moderate to neutral responses.

To test this, all items for each the independent and interdependent factors were

recoded so that extremes scores (1 or 5) were now represented as 1 and scores that fell in

the middle (2, 3, and 4) were equal to 0. Two analyses of variance, one for each of the

independent and interdependent factors revealed that there was a significant difference

amongst groups regarding extreme scores on both factors of the Triandis et al scale: F (3,

335) = 190.285, p <.011 for the interdependent factor items and F(3,335) = 30.383, p <

.001 for the independent factor items. Tukey's post hoc paired comparison analysis of

interdependent factor items revealed that individuals who fell into the high/high group

had significantly fewer extreme scores (M = .14, SD = .135) than individuals who fell

into the high interdependent group (M = 1, SD = .0), high independent group (M = .30,

SD = .46), and the low/low group (M = 1, SD = .0) at significant level, see *Figure 2*.
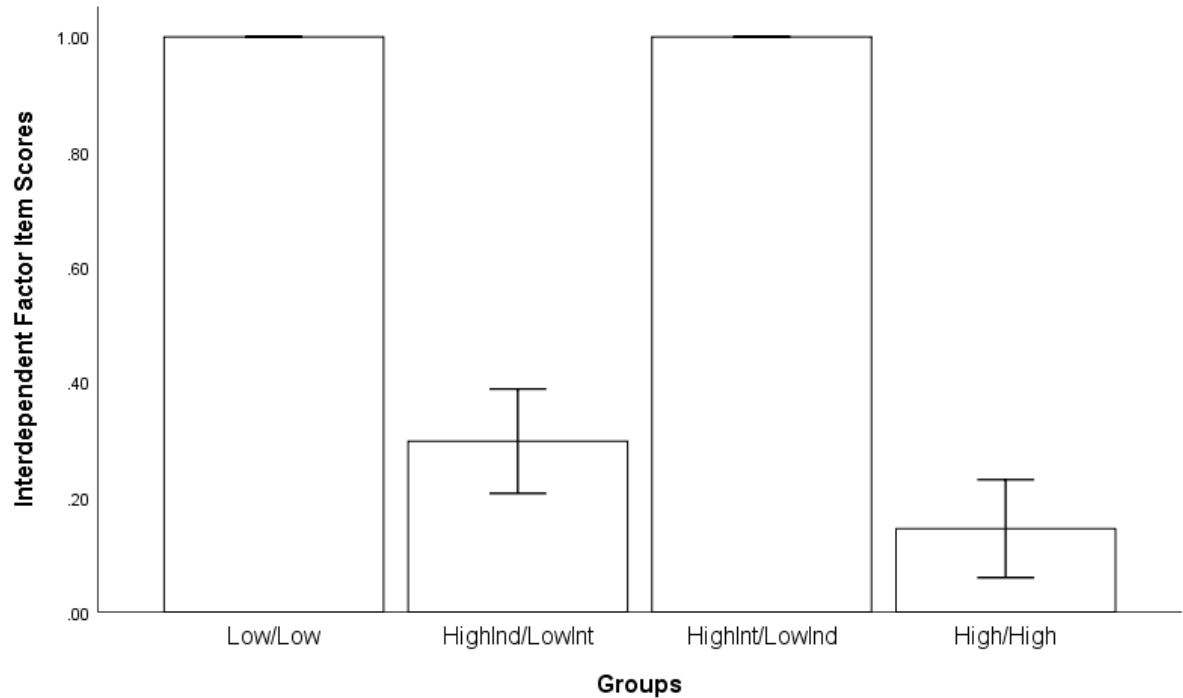
Figure 2. Extreme Scores for Interdependent Factor Items by Groups.

Tukey's post hoc paired comparison analysis of the independent factor items
revealed that individuals who are in the high/high group (M = .28, SD = .45) had
significantly higher extreme scores than individuals in the low/low group (M = .06, SD =
.25) and the high independent/low interdependent (M = .00, SD = .00). However, in the
pair wise comparison it was also revealed that individuals in the high interdependent/low
independent group had the highest extreme scores out of all the other groups (M = .45,
SD = .50), see *Figure 3*.
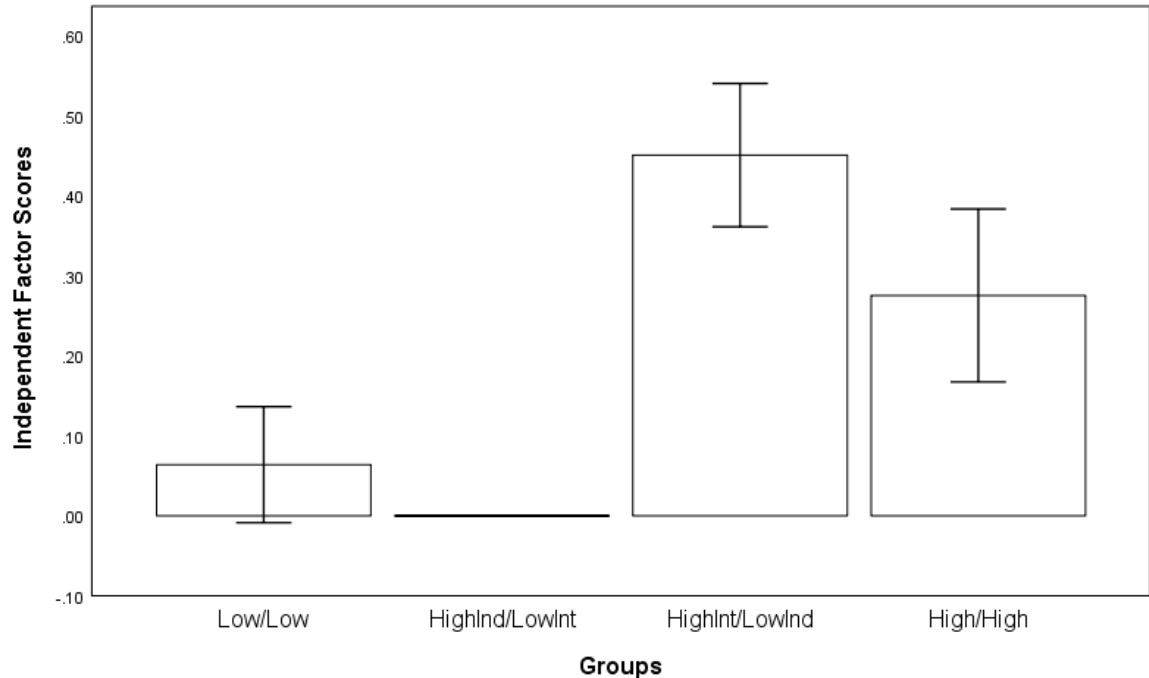
Figure 3. Extreme Scores for Independent Factor Items by Groups.

To test the second hypothesis, an ANOVA was conducted to determine if any differences in reaction times existed among the groups established above. A test for normality was conducted by observing the Q-Q plot and histogram. Points on the Q-Q plot were observed as normal. Although the histogram appeared to be negatively skewed it fell between the acceptable range of -2 and +2 (Kim, 2013). Levene's test of homogeneity of variance was significant and equal variance between the groups couldn't be assumed. The analysis of variance test revealed that no significant difference was found among the 4 groups in their response times to the modified Triandis et al. measure, $F (3,335) = 1.316$, ns. However, post hoc analyses, although not significant, revealed that individuals in the high/high group took longer to respond (M = 1678.54, SD = 7489.51) than those who were in the high independent/low interdependent group (M = 1487.64, SD = 6194.39) but less than those who fell into the high interdependent/low independent

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group (M = 2966.2, SD = 23530.83). It appears that the two groups with individuals with high interdependence took longer to respond to the items, although again this was not significant.

Additional analyses. In addition to the tests of the hypotheses, correlational and analysis of variance tests were conducted. The correlational analyses examined the links between the two subscales of the Modified Triandis scale and each of the following: Openness, two subscales of the Acculturation scale and the three components of the Social Support measure, Table 3. Additionally, one-way ANOVAs were conducted to see if the four groups differed on Openness, the three Acculturation factors, and each of the 3 components of a social support measure (someone to talk to, relationships, and individuals who listen to you).

Correlational Analyses

An exploratory correlation analysis was conducted to explore any relationships among the variables. Findings show that the Interdependence factor is positively and significantly correlated with Openness [$r (1, 339) = .11, p < .05$], Individuals that Listen to you [$r (1, 339) = .24, p < .01$], and Individuals you have a relationship with [$r (1, 339) = .19, p < .05$]. These are not very strong correlations, but they suggest that individuals who were stronger in interdependence were more likely to be open to experiences, had more others that listened to them and had more close relationships with others. Other correlations are listed in Table 3.

Analyses of Variance.

Seven one-way ANOVAs were conducted to test differences among the four groups created by the median splits above on the following dependent variables:

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Openness, the three Acculturation factors, three components of the social support

measure (someone to talk to, relationships, and individuals who listen to you). Test of

assumptions found that all the analyses met assumptions for normality, homogeneity and

independence. Histograms and QQ plots showed normality and the Levene tests

demonstrated homogeneity of variance.

The analyses of variance revealed only one significant result; the four groups

differed on the social support component of people who listen to them, F (3, 335) =

4.701, p = .003. Tukey's paired comparison results revealed that individuals who were in

the high independent/low interdependent group (M = 4.54, SD = 2.70) had significantly

lower scores than those who fell into the high interdependent/low independence group (M

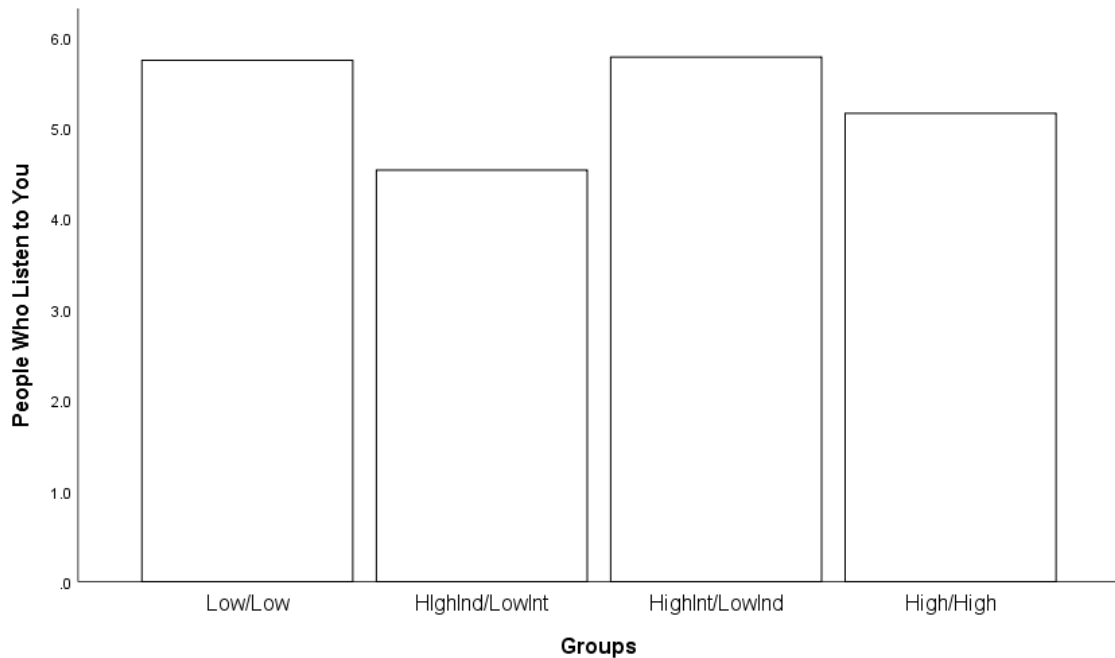= 5.78, SD =2.60) and the low/low group (M = 5.75, SD = 3.12), see *Figure 4*.

Figure 4. Post hoc paired comparisons of people who listen them and groups.

IV. Discussion

This study found evidence to support the first hypothesis that individuals with two distinctively separate construals of individualism and interdependence exist. The factor analysis strongly suggests a multi-dimensional presence of these two construals. These findings add to the previous literature of self-construals by identifying that individuals possess both construal's at varying degrees. These findings were expected as individuals are social creatures by nature with a predisposition to constantly be adapting to their surroundings thus creating a multicultural individual with varying degrees of these constructs.

Although it is important to note that within this study our sample, comprised of college students, as previously mentioned seemed to favor interdependence. Our sample overall had a mean score of 3.8 for interdependence and 2.4 for independence with five being the highest. This is an interesting finding as it has been proven time and time again that college students are typically more independent. The findings here contradict that and may be due to the geographical location of the university. The sample was pulled from Texas State University which is in South Texas and heavily influenced by a Hispanic culture. Hispanic culture on average tends to be more interdependent. In addition, the university culture tends to be more open and accepting of individuals and their cultures. A supplementary explanation for why our sample preferred interdependence may be due to the culture the university creates for its student body.

Hypothesis 1 was supported by the responses to the interdependent items and the paired comparison analysis found that individuals in the high/high group scored lowest of all the groups in terms of extreme scores. While the first hypothesis was supported by

responses to the interdependent items, the hypothesis was only partially supported by the responses to the independent items.   For these items, individuals who fell into the high/high group had lower extreme scores than those in the high interdependent/low independent group, but higher ones than the individuals who fell into the high independent/low interdependent and low independent/low interdependent groups. These findings appear reflective of an internal equivocation process due to expression of both self-construals at a high level, but more clearly in terms of their responses to the interdependent factor items.

This finding proves interesting as it appears that individuals who are high in both self-construals are more likely to select an extreme response when presented an independent factor scenario as opposed to an interdependent one. An explanation for this might be that since our sample overall was more interdependent than independent, they were more likely to select extreme scores in terms of the independent factor items. However, when it came to items that were of an interdependent nature it seems that our participants equivocated on their scores. This could be due in part to the nature of our questions. It is possible that the wording or language of our interdependent items would cause our participants to equivocate. Another possibility may very well be that our high/high group is performing a form of cultural switching (Laframboise et al., 1993), based on the wording and language of our questions. Individuals who are high/high may be reading these interdependent questions in English and switching to their more independent culture. However, since they also possess interdependence at high levels, although they performed cultural switching, their interdependence may still be causing them to equivocate on these items.

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What was surprising was the discovery of a low/low group. Upon conducting the median splits, a low/low group emerged and appeared to display low levels on both self contruals. While the high/high group does connect with the previous literature of self-construals the low/low group seems to be something that has not previously been explored.

The individuals in this low/low group responded low on questions regarding family and social connections but also responded low on questions regarding their own self. This is interesting as most individuals in our sample tended to score high in at least one of those two factors. It is possible that this group may be a new generation coming into college. They may be having some difficulties identifying their sense of self since they left to college to express themselves but may also be struggling internally with the idea of leaving their close social support network behind which in turn could be creating feelings of ambivalence. This is something worth investigating in a future study

Another explanation may be that this low/low group may be comprised of individuals who don't feel like they've integrated into the university setting but don't feel like they belong at home either. Vasquez-Salgado et al. (2014) did find first generation college students who struggled with these exact issues. What they found was that first-generation Hispanics who were leaving to a university setting were torn between staying at the university to follow their goals or returning home to help the family. It may be possible that the low/low group in our sample may be comprised of those individuals who haven't necessarily selected on what route they want to follow. Our sample is comprised mainly of college freshman, so it isn't surprising if an individual has yet to make a choice between following their own goals and dreams or choosing to follow their family's

wishes.   This too, is worth testing in a future study.

In addition to finding results that supported the first hypothesis this study was able to increase the alpha of Triandis et al.'s measure of individualism and interdependence. Although the reliability did not pass the .7 threshold it still managed to increase the alpha from the previous .52. Although both sub scales were only able to reach an alpha of .62 , some researchers consider alphas between .6 and .7 to be reliable enough for a measure to be viable (Griethuijsen et al., 2014; Taber, 2017). This new measure did manage to improve the reliability; however, it could still be improved to more accurately detect individuals who fall into this multicultural group.

Even though the measure used in this study had low reliability it isn't entirely surprising based on the constructs we're measuring. In this study, we explore the idea that people are multicultural and have varying degrees of these two self-construals. It may be because of this variance amongst both self-construals that our sample exhibits inconsistency in the items. Thus, this inconsistency could explain why the reliabilities of the constructs were so low. It isn't necessarily due to the items not fitting well with one another but because our sample possesses multiple constructs that are pulling each individual in different directions when they are responding to the items.

In addition to the main hypothesis, exploratory correlations were conducted to better identify personality and social characteristics that might help identify a multicultural individual. The correlations showed that Interdependence was linked with Openness, Independence, individuals who listen to you, individuals you have a relationship with, independent extreme scores, and interdependent extreme scores.

In addition, an analysis of variance was conducted to test if there were any

significant differences among the groups regarding their social connections of individuals who listened to them. It was found that our target group of high/high individuals did not differ from the other groups. However, it was found that individuals in the high interdependent and low/low group had significantly more connections than those in the high independent group. These results do fall in line with literature that states that collectivistic individuals typically have a closer social network of people they can rely on as opposed to the independent individual who may not have that same social network (Markus & Kitiyama, 1991). Although it was interesting to find that individuals in the low/low group possessed more connections than those in the high independent group. An explanation for this might be that since individuals in the low/low group exhibit both self-construals at lower levels they may seek out more social connections as opposed to those in the high independent group.

Implications.

The findings of this study point to the existence of multiculturalism in all of us. Additionally, the identification of a group that is high in both self-construals also needs further research to better identify their characteristics and how their culture or the setting they find themselves in affects them. Studies of this group could help provide a better understanding of how they adapt to certain situations that they are presented with. This group could also provide more information on how this transformation of single self-construal to a multicultural one takes place.

For example, would individuals high in both self-construals have acquired this transformation by being in a setting that requires them to adapt more quickly and more successfully than the other groups? Would this be the cause of suddenly being placed in a

new highly multicultural environment or could it be due to other factors? Further research should explore not only the situations that cause this transformation but also the effects that it may have on an individual both physiological and psychological.

Limitations.

One of the major limitations of this study is that the sample data consisted mainly of college students. Although college is an ideal location to study various people from various types of backgrounds this sample is not representative of the population. Most individuals in the real world may not have as much interactions with such diverse cultures as college students. For once an individual finishes university they enter the workplace where cultural diversity may be limited based on multiple factors such as the field they are in, the qualified candidates, and the geographical location. Although this study does provide evidence to support the idea that there is multiculturalism in all of us it may be worth expanding on this study to identify if similar trends are discovered in other populations that aren't as culturally diverse. If multiculturalism is something that everyone possesses it would be interesting to see how multiculturalism has manifested itself in non-culturally diverse samples.

In addition, another limitation was that although modifications and addition of questions were added to the original Triandis scale, the measure still failed to surpass an alpha of .7. Although both subscales were only able to achieve a reliability alpha of .62 and .60 there have been many articles that have suggest that an alpha above .6 is still acceptable (Taber, 2017; Griethuijsen et al. 2014). Although this measure was unable to cross that threshold it was interesting to see that neither could Luo et al.'s validated measure. When conducting a reliability analysis on Luo et al.'s measure both subscales

came up at around .650 respectively. The fact that the Luo et al measure came out lower is interesting as it might indicate that there is an issue with our sample. Although this lower reliability could also be explained by the nature of these questions and it might be that in this sample .650 is the highest alpha that can be achieved. Future studies may want to look at how the modified Triandis measure performs in other samples as well as possibly refining it further to make it a more viable option to measure self-construals on a multidimensional level.

In addition, another limitation of this study was the survey software response time section. The original methodology of measuring reaction time was to measure reaction times of the items within the measure that was created for this study. However, upon execution of the study and recovering the data it was discovered that the reaction times that were recorded were for the entire survey. This was a methodological limitation that future research should be address. Future research should explore possibly bringing individuals into a lab setting and recording their reaction times for the measure items.

Future Directions.

Although these multicultural groups have been identified more research is needed to better identify their characteristics. Future research should attempt to identify if any other behavioral differences besides response times may be present in these different groups. For example, it is unknown how these multicultural groups differ in their ability to handle different situations. Perhaps one group isn't as well equipped to handle situations as the others. Future studies could examine how individuals varying in these constructs react to a series of interdependent and independent situations.

Another avenue that future research should explore is the equivocation hypothesis

on extreme scores. In this study extreme scores, i.e. 1 and 5, were used to determine if an individual would equivocate based on the self-construals within them. However, future studies should consider instead of using extreme scores (1 or 5) the possibility of using of the middle point, i.e. 3, instead. Using the score three may be more help to reveal more information on which individuals are equivocating. Using this point instead of extreme scores could help to validate if high/high individuals are truly equivocating based on the nature of the scenarios they are presented with or if they struggle to answer certain items as opposed to others.

In addition to further identifying behavioral differences amongst the groups, future research should also identify other personality variables that may be associated with these constructs and groups. In this study it was found that openness, and who they talk to was significantly correlated with interdependence. Although the groups differed significantly on only one of the variables, it is possible that there are other personality variables that may distinguish these groups from each other. More specifically it would be worth looking into variables that may require more introspection and thought such as conscientiousness, agreeableness and extraversion as individuals who are multicultural may display personality behavior that may be unique to their groups. This in turn could help to achieve a better image of how a multicultural individual personality may be uniquely influenced by the merging of these two self-construals.

Lastly, in this study the measure did fail to surpass an alpha of .7. Thus, future studies should revisit and refine the measure used in this study to better help identify multicultural individuals. Future studies could accomplish this by possibly refining the survey questions, adding more questions and conducting test-retest reliability analysis to

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see if this measure does prove to be reliable enough to identify multicultural individuals. As we saw in this study there are individuals with varying degrees of interdependence and independence and they bring in their unique contributions to the literature. A reliable measure that correctly and accurately measures these constructs is imperative if we wish to expand what we know about the influence of these constructs on all of us.

Conclusion.

The results of this study do build upon the previous established theories of cultural blending (Heine & Lehman., 2004), Bicultural Identity Integration (Benet-Martinez et al.,2003) and Cultural Frame Switching (LaFramboise et al., 1993) as well as confirm that individuals do possess the ability to maintain and merge the two self-construals. In addition, this adds to the literature by noting that these constructs are present in varying degrees in individuals with some showing the presence of both (multicultural group) and others showing little presence of one construct or both (a low/low group). The evidence of multiculturalism and low/low groups suggests that self-construals are not as dichotomous as previously believed, but more so exist as two living constructs within an individual that in some cases express themselves highly and, in some cases, don't express themselves at all. These findings suggest that it is possible that multicultural individuals may be on the rise as they integrate into an ever-changing society filled with diverse cultures. As society keeps progressing towards being more culturally diverse a rise in these multicultural individuals may be more prevalent than once thought.

Table 1. Descriptive Statistics for all Measures

	Minimum	Maximum	Mean	Std. Deviation	alpha
Media Use	1	5	4.2886	0.68427	0.832
Language Use	1	5	4.5189	0.77602	0.9
Ethnic Social Relations	1	5	3.1555	0.71695	0.792
Interdependent (Luo et al.)	1	5	2.3828	0.65545	0.657
Independent (Luo et al.)	1	4.25	1.8261	0.62717	0.658
Openness	1	3.91	1.9996	0.51475	0.616
Interdependent (Modified Triandis)	2.20	5	3.80	0.47762	0.622
Independent (Modified Triandis)	1	5	2.3892	0.59882	0.623
Talk to	0	1	0.3671	0.21443	N/A
Listen to you	0	1	0.2548	0.13986	N/A
Relationship	0	1	0.2982	0.16546	N/A
Reaction Time (Seconds)	10	3434	707.39	461.87	N/A
Interdependent Extreme Score	0	1	0.6296	0.48359	N/A
Independent Extreme Score	0	1	0.2536	0.43567	N/A

Table 2. Results of Factor Analysis

	Interdependent	Independent
If my brother/sister and their spouse were to die, I would raise their children as my own.	0.677	
Before making a major decision, I discuss it with my family.	0.65	
If my niece or nephew were to be married I would travel across the country to be at their wedding.	0.63	
It is my duty to take care of my family even when I have to sacrifice what I want.	0.603	
I would entertain my relatives if they dropped by unexpectedly.	0.499	
If I were to get married, I would be alright if my parents consulted with my in-law parents about our marriage.	0.481	
If I saw my parents once a year that would be sufficient.		0.642
Rather than visiting an ill friend I would rather send them flowers.		0.581
If my siblings flunked out of college I would not worry.		0.572
If I went to visit my friends in a different city I would rather stay at a hotel than with them.		0.558
I can't wait to live further away from my parents.		0.513
I would place my parents in a nursing home when the time came that they couldn't take care of themselves.		0.500
It bothers me that my parents worry about me.		0.43
I am self-reliant and I do not need my family's permission to achieve my goal.		0.362

Table 3. Pearson Correlations Amongst All Variables.

Measures	1	2	3	4	5	6	7	8	9	10	11
1.Interdependence (Modifed Triandis)	1										
2.Independence (Modified Triandis)	-.251**	1									
3.Linguistic Use	-.121*	-0.022	1								
4.Media Use	-.123*	-0.026	.789**	1							
5.Ethno Socio Relations	-0.078	0.038	.478**	.647**	1						
6.Openness	-.122*	0.097	0.100	.141*	.122*	1					
7.Individuals to talk to	0.017	0.032	-0.031	-0.063	-0.093	-0.077	1				
8.Individuals who listen to you	.189**	-0.016	-0.063	-0.078	-.120*	-.120*	.567**	1			
9.Individuals you have a relationship with	0.068	-0.028	-0.007	-0.042	-.114*	-.138*	.611**	.634**	1		
10.Interdependent Extreme Scores	.705**	-.222**	-0.024	-0.003	0.005	-0.096	-0.010	0.101	-0.005	1	
11.Independent Extreme Scores	.347**	-.548**	-.146**	-.151**	-0.090	-0.091	-.131*	-0.062	-0.055	.216**	1
12. Reaction Time	0.023	0.064	-0.021	-0.072	0.025	-0.027	-0.005	-0.016	-0.031	0.041	0.075

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).
N = 351

Marlowe-Crowne Social Desirability Scale

13-Item Short Form

Listed below are a number of statements concerning personal attitudes and traits.

Read each item and decide whether the statement is true or false as it pertains to

you.

1. It is sometimes hard for me to go on with my work

if I am not encouraged.

True/False

2. I sometimes feel resentful when I don't get my own

way.

True/False

3. On a few occasions, I have given up doing

something because I thought too little of my ability.

True/False

4. There have been times when I felt like rebelling

against people in authority even though I knew

they were right.

True/False

5. No matter who I'm talking to, I'm always a good

listener.

True/False

6. There have been occasions when I took

advantage of someone.

True/False

7. I'm always willing to admit it when I make a

mistake.

True/False

8. I sometimes try to get even, rather than forgive

and forget.

True/False

9. I am always courteous, even to people who are

disagreeable.

True/False

10. I have never been irked when people expressed

ideas very different from my own.

True/False

11. There have been times when I was quite jealous

of the good fortune of others.

True/False

12. I am sometimes irritated by people who ask

favours of me.

True/False

13. I have never deliberately said something that hurt

someone's feelings.

True/False

Independent Self-construal Measure

Items

Interdependent self-construal
It is important for me to maintain harmony with my group
My happiness depends on the happiness of those around me
I will sacrifice my self-interest for the benefit of the group I am in
My relationships with others are more important than my own accomplishments
Even when I strongly disagree with group members, I avoid an argument

Independent self-construal
I enjoy being unique and different from others in many aspects
My personal identity is independent of other people
I consider myself as a unique person separate from others
I see myself as a very independent person

Adapted Measure of Interdependence and Independence

	Interdependent	Independent
If my brother/sister and their spouse were to die, I would raise their children as my own.	0.677	
Before making a major decision, I discuss it with my family.	0.65	
If my niece or nephew were to be married I would travel across the country to be at their wedding.	0.63	
It is my duty to take care of my family even when I have to sacrifice what I want.	0.603	
I would entertain my relatives if they dropped by unexpectedly.	0.499	
If I were to get married, I would be alright if my parents consulted with my in-law parents about our marriage.	0.481	
If I saw my parents once a year that would be sufficient.		0.642
Rather than visiting an ill friend I would rather send them flowers.		0.581
If my siblings flunked out of college I would not worry.		0.572
If I went to visit my friends in a different city I would rather stay at a hotel than with them.		0.558
I can't wait to live further away from my parents.		0.513
I would place my parents in a nursing home when the time came that they couldn't take care of themselves.		0.500
It bothers me that my parents worry about me.		0.43
I am self-reliant and I do not need my family's permission to achieve my goal.		0.362

Big Five Personality Trait Short Questionnaire
BFPTSQ

Items		
		I see myself as someone who . . .

Openness

1		Is original, often has new ideas.
6		Is curious about many different things.
11		Is ingenious, reflects a lot.
16		Has a lot of imagination.
21		Is inventive, creative.
26		Likes artistic or aesthetic experiences.
31	R	Is not really interested in different cultures, their customs and values.
36		Likes to reflect, tries to understand complex things.
41	R	Has few artistic interests.
46		Is sophisticated when it comes to art, music or literature.

Short Acculturation Scale for Hispanics
SASH

Items
_____

A. English

1. In general, what language(s) do you read and speak?
    1. Only Spanish
    2. Spanish better than English
    3. Both Equally
    4. English better than Spanish
    5. Only English

2. What was the language(s) you used as a child?
    1. Only Spanish
    2. More Spanish than English
    3. Both Equally
    4. More English than Spanish
    5. Only English

3. What language(s) do you usually speak at home?
    1. Only Spanish
    2. More Spanish than English
    3. Both Equally
    4. More English than Spanish
    5. Only English

4. In which language(s) do you usually think?
    1. Only Spanish
    2. More Spanish than English
    3. Both Equally
    4. More English than Spanish
    5. Only English

5. What language(s) do you usually speak with your friends?
    1. Only Spanish
    2. More Spanish than English
    3. Both Equally
    4. More English than Spanish
    5. Only English

Items
___

6. In what language(s) are the TV programs you usually watch?
    1. Only Spanish
    2. More Spanish than English
    3. Both Equally
    4. More English than Spanish
    5. Only English

7. In what language(s) are the radio programs you usually listen to?
    1. Only Spanish
    2. More Spanish than English
    3. Both Equally
    4. More English than Spanish
    5. Only English

8. In general, in what language(s) are the movies, TV and radio programs you prefer to watch and listen to?
    1. Only Spanish
    2. More Spanish than English
    3. Both Equally
    4. More English than Spanish
    5. Only English

9. Your close friends are:
    1. All Latinos/Hispanics
    2. More Latinos than Americans
    3. About Half & Half
    4. More Americans than Latinos
    5. All Americans

10. You prefer going to social gatherings/parties at which the people are:
    1. All Latinos/Hispanics
    2. More Latinos than Americans
    3. About Half & Half
    4. More Americans than Latinos
    5. All Americans

Items

11. The persons you visit or who visit you are:
    1. All Latinos/Hispanics
    2. More Latinos than Americans
    3. About Half & Half
    4. More Americans than Latinos
    5. All Americans

12. If you could choose your children's friends, you would want them to be:
    1. All Latinos/Hispanics
    2. More Latinos than Americans
    3. About Half & Half
    4. More Americans than Latinos
    5. All Americans

Social Support Inventory

The following items measure the extent of one's network of friends, family, and acquaintances, and also identify those who depend on us as well as those whom we depend on, for advice, comfort and help.

Select the individuals below that you can depend on to listen to <u>you</u> if you needed someone to talk to. Who would advise you and be there for you if you needed help? Check all those that apply.

- [ ] Spouse or Partner

- [ ] Father (Father Guardian)

- [ ] Mother (Mother Guardian)

- [ ] Brother

- [ ] Second Brother

- [ ] Third Brother

- [ ] Sister

- [ ] Second Sister

- [ ] Third Sister

- [ ] Son

- [ ] Daughter

- [ ] Son-in-Law

- [ ] Daughter-in-law

- [ ] Niece

☐ Nephew

☐ Co-Worker

☐ Neighbor

☐ Church Member

☐ Best Friend

☐ Second Friend

☐ Third Friend

Select the individuals below with whom you have a familial, friendship or acquaintanceship relationship. Check all that apply.

☐ Spouse or partner

☐ Father (Father Guardian)

☐ Mother (Mother Guardian)

☐ Brother

☐ Second Brother

☐ Third Brother

☐ Sister

☐ Second Sister

☐ Third Sister

☐ Son

☐ Daughter

☐ Son-in-law

☐ Daughter-in-law

☐ Niece

☐ Nephew

☐ Co-Worker

☐ Neighbor

☐ Church Member

☐ Best Friend

☐ Second Friend

☐ Third Friend

Select the individuals below that could depend on you if they needed someone to talk to. Who would you advise and be there for if they needed help? Check all that apply.

☐ Spouse or partner

☐ Father (Father Guardian)

☐ Mother (Mother Guardian)

☐ Brother

☐ Second Brother

☐ Third Brother

- [ ] Sister

- [ ] Second Sister

- [ ] Third Sister

- [ ] Son

- [ ] Daughter

- [ ] Son-in-law

- [ ] Niece

- [ ] Nephew

- [ ] Co-worker

- [ ] Neighbor

- [ ] Church Member

- [ ] Best Friend

- [ ] Second Friend

- [ ] Third Friend

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