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The Associations of Biculturalism to Prosocial Tendencies and Positive Self Evaluations

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Abstract

Although some research exists on biculturalism and negative adjustment, few studies have examined the mechanisms that account for the positive correlates of biculturalism in U.S. Latino youth. Two competing reverse causal models were tested. Specifically, we examined how biculturalism among 574 U.S. Mexican adolescents ($n=296$ girls; $M= 17.84$ years, $SD= .46$ years) was related to prosocial tendencies and positive self evaluation (i.e., self-esteem and general self-efficacy). The findings yielded supportive evidence for both reverse causal models suggesting that prosocial tendencies may mediate the relations between biculturalism and positive self evaluations, and that positive self evaluations may mediate the relations between biculturalism and prosocial tendencies. The implications of the role of biculturalism for understanding prosocial development and positive self evaluations in U.S. Mexican youth are discussed.

Keywords

biculturalism; Latino/as; adolescents; prosocial tendencies; self worth

There are approximately 40 million foreign-born persons living in the United States (e.g., naturalized citizens, legal residents), which represents about 13% percent of the population (Singer, 2013). Many U.S. Latino immigrants acculturate to U.S. mainstream society while still endorsing their culture of origin, thereby becoming bicultural. In addition, immigrants may experience dual cultural involvement as they continue to live and interact with members of both cultures. Hence, many of these individuals may identify with both cultures and often experience pressures to simultaneously *acculturate* (i.e., the process of adapting to a new culture) to the mainstream United States and *enculturate* (i.e., the process of adapting to the origin ethnic culture) to their respective ethnic cultures (e.g., Gonzales, Fabrett, & Knight, 2009). Though many immigrants may engage in dual cultural involvement in their everyday lives, there is relatively little empirical evidence regarding positive outcomes associated with biculturalism and the mechanisms by which biculturalism may lead to important life outcomes (for exceptions see Benet-Martinez, Lee, & Leu, 2006; Tadmor, Galinsky, & Maddux, 2012). The present study focused on examining the association of biculturalism to

prosocial tendencies and positive self evaluation and testing a possible mechanism that accounts for such relations in a sample of U.S. Mexican youth.

Biculturalism

Biculturalism is defined as feelings of comfort, facilities in navigating, and recognizing the advantages of connections with members of at least two cultures (Acevedo-Polakovich et al., 2014; Benet-Martinez, Leu, Lee, & Morris, 2002; Berry, 2015; David, Okazaki, and Saw, 2009; Hong, Morris, Chiu, & Benet-Martinez, 2000). This definition suggests that bicultural individuals have the necessary skills to function effectively in both cultural contexts even though these two contexts may require different behaviors. Further, the activation and engagement of appropriate behaviors depends on the demands of the particular cultural context, which requires sufficient bicultural competence and efficacy (LaFromboise, Coleman, & Gerton, 1993). The individual must recognize the relevant cues and switch cultural frames depending on the cultural context (Benet-Martinez et al., 2002; Verkuyten, & Pouliasi, 2002). Moreover, based on the integrative complexity approach (Tadmor, Galinsky, & Maddux, 2012; Tadmor & Tetlock, 2006), bicultural individuals may easily recognize competing perspectives, identify their differences, and better integrate these perspectives to generate creative ideas (see Benet-Martinez, Lee, & Leu, 2006; Saad, Damien, Benet-Martinez, Moons, & Robins, 2013). Hence, bicultural individuals may be more successful in their dual cultural worlds, which may lead to greater well-being and positive adjustment.

Bicultural individuals may also be predisposed to consider a broader range of people as members of their ingroup. That is, their ingroup may include others who are members of the U.S. mainstream culture, as well as, members of their ethnic culture. Individuals assess their ingroup membership, in part, through their similarity and familiarity with the physical characteristics, personality factors, and the attitudes of others (e.g., Rushton, Russell, & Wells, 1984). Hence, bicultural individuals, compared to their more monocultural counterparts, may be more familiar with members of both cultural groups through more frequent interpersonal interactions and exposure to both cultures. Further, the sense of connectedness and belongingness to a broad range of individuals may foster feelings of comfort and confidence, and lead to relatively high levels of well-being and positive adjustment.

Biculturalism and Positive Youth Outcomes

Although biculturalism may be quite adaptive and associated with a variety of positive outcomes for those who live in a diverse cultural context, the empirical research has provided somewhat inconclusive findings (see Nguyen & Benet-Martinez, 2013, for a review). A meta-analytic review of studies suggested, however, that previous inconsistent findings may be an artifact of measurement. That is, biculturalism was related to psychological and sociocultural adjustment in those studies using a bilinear operationalization (i.e., identification with one culture is independent with identification with the other) of biculturalism but not in those studies that used unilinear measures (e.g., Nguyen & Benet-Martinez, 2007).

Biculturalism has been linked to greater academic competence, less problem behavior, less internalizing problems, and greater self-esteem (Coatsworth, Maldonado-Molina, Pantin, & Szapocznik, 2005; Smokowski & Bacallao, 2007). Unfortunately, these studies have mostly characterized positive outcomes as the absence of, or lowered rates of, negative outcomes or maladjustment. Few researchers, have investigated the relations between biculturalism and direct positive outcomes although there have been calls for such research (e.g., Garcia-Coll et al., 1996; Kuperminc, Wilkins, Roche, & Alvarez-Jimenez, 2009; Cabrera, Beeghly, & Eisenberg, 2012; Rodriguez & Morrobel, 2004). The present study sought to identify how biculturalism may be associated with prosocial tendencies and positive self evaluations.

We propose that biculturalism will be positively associated with prosocial tendencies. Prosocial development scholars define prosocial tendencies as actions intended to benefit others, which may include socially adaptive actions such as sharing, donating, and helping others (Carlo, 2006; Eisenberg, Fabes, & Spinrad, 2006). Individuals who frequently engage in prosocial tendencies also tend to demonstrate other qualities of well-being and positive adjustment such as sustaining healthier interpersonal relationships, accomplishing higher academic achievements, empathy (i.e., feeling the same as another), perspective taking (i.e., understanding the thoughts, emotions and social situation of others), moral reasoning (i.e., articulating care and justice principles and norms), and self-regulation (Carlo, 2006; Eisenberg et al., 2006). Furthermore, different types of prosocial tendencies have been theoretically and empirically linked with U.S. Mexican and mainstream U.S. cultures (Armenta, Knight, Carlo, & Jacobson, 2010; Calderon-Tena, Knight, Carlo, & Jacobson, 2010). However, we are not aware of any previous attempts to examine the association between biculturalism and prosocial tendencies.

Integrative complexity may enable bicultural individuals to recognize and integrate the distinct prosocial tendencies that are more normative within each cultural group. Hence, biculturalism may lead to a broader range of ways of prosocial tendencies because of the integrated knowledge of helping behaviors from both cultural groups. The broader ingroup associated with being bicultural may also lead to more opportunities to behave prosocially. That is, since there is empirical evidence that individuals are more familiar with ingroup members and that this familiarity is associated with more prosocial tendencies (Kenny & Kashy, 1994). Bicultural individuals may have more opportunities to behave prosocially because they have a range of familiar ingroup members, as well as, outgroup members who may be recipients of helping.

Positive self evaluations (i.e., self-esteem, self-efficacy) are based on a variety of psychological processes, such as social comparison (e.g., Festinger, 1954), reflected appraisal processes (e.g., Mead, 1934; Tice & Wallace, 2003), and self-perception processes (e.g., Bem, 1967). Bicultural individuals, compared to their monocultural counterparts, could have more positive self evaluations because these psychological processes may lead them to perceive themselves as more competent and efficacious in dealing with the demands of their dual cultural worlds.

Self-efficacy theory postulates that self-expectancies influence behavior and that attributions of past successes to one's own skills (versus chance) lead to positive adjustment (Sherer &

Maddux, 1982; Maddux, Sherer, Rogers, 2012). Researchers have found that bicultural individuals have greater self-esteem than their monocultural individuals (e.g., Chen, Benet-Martinez, & Bond, 2008). However, the empirical evidence is limited thus far. Biculturalism may also be associated with more positive self evaluation because the integrative complexity associated with being bicultural may allow these individual to be more successful in their dual cultural worlds through better integration of their specific cultural skills. Therefore, bicultural individuals may have more positive experiences based on their knowledge of the two cultural contexts. The expanded ingroup of biculturalism may lead to an expanded sense of belonging and they may also receive social support from members of both cultural groups, which may eventually result in more positive self evaluations.

The Present Study

The primary purpose of this study was to examine the associations of biculturalism to prosocial tendencies and positive self evaluation in U.S. Mexican adolescents. Two competing conceptual models were tested (see below). In these models, we also examined whether the paths were moderated by adolescents' gender or nativity. In two meta-analytic reviews, scholars who concluded that gender differences in prosocial tendencies depended upon the specific form of helping (Eagly & Crowley, 1986; Eisenberg & Fabes, 1998). Other researchers present accumulated evidence that males generally report greater self-esteem than females (e.g., Kling, Hyde, Showers, & Buswell, 1999). These findings suggest that there might be gender-specific patterns of relations such that biculturalism may be particularly strongly related to prosocial tendencies and positive self evaluations for boys if boys are better able to navigate two cultures. In contrast, there is no prior research on the role of nativity as a moderator for prosocial tendencies and positive self evaluation, thus examination of this moderation is exploratory. Given the possible greater variability in biculturalism among youth born in Mexico than born in the U.S., we speculated that biculturalism may be more strongly associated with positive outcomes for those born in Mexico.

Model 1: Prosocial tendencies as a mediator

First, biculturalism was expected to be positively related to positive self evaluations via prosocial tendencies. Engaging in prosocial tendencies can lead to more positive self evaluations (i.e., self-esteem and general self-efficacy) because engaging in these tendencies is often associated with a feeling of worth or value in society. Researchers have shown that prosocial tendencies are positively associated with well-being (Weinstein & Ryan, 2010) and is predictive of self-esteem (Gecas, 2001; Laible, Carlo, & Roesch, 2004; Yates & Younnis, 1996). Prosocial tendencies may also be a strategy for individuals to increase their self-esteem (Carver, Sutton, & Scheier, 2000). One's positive self-appraisal might benefit from one's past experiences with helping behaviors. In addition, engaging in prosocial tendencies might also lead to a feeling of self-efficacy because these tendencies imply that an individual has something valuable to offer to another person and can effectively do so, thereby potentially increasing perceptions of one's efficacy. Specifically, if individuals have positive experiences with engaging in prosocial tendencies, they might also experience a greater sense of self-efficacy.

Model 2: Positive self evaluation as a mediator

In contrast to the model above, it is also possible that as biculturalism increases, prosocial tendencies will also increase via self evaluation. An individual who feels efficacious in their actions may be more likely to engage in more prosocial tendencies. Indeed, some research has shown that self-efficacy beliefs promote prosocial tendencies (Caprara & Steca, 2005; Caprara & Steca, 2007). Hence, we examined an alternative partial reverse causal model in which positive self evaluations mediate the association between biculturalism and prosocial tendencies.

Method

Participants

The sample consisted of U.S. Mexican adolescents living in the greater Phoenix area (see *Author citation*, 2008 for detailed sampling and recruitment information) as a part of larger longitudinal research project. The study used a combination of random and purposive sampling (i.e., a stratified random sampling procedure) so as to include U.S. Mexican adolescents from diverse backgrounds (e.g., nativity, SES status). The participants in this study were in their fourth wave of participation (additional waves of data could not be used because not all measures were administered earlier). At wave 1, there were 749 participants who were in the 5th grade at that time. At wave 4, there were 608 continuing participants who were then in the 12th grade. In addition, the Mexican American Biculturalism Scale (MABS) was not administered to participants who have since moved to Mexico and who completed the study via phone interviews ($n = 33$). Finally, one participant residing in the United States did not complete the MABS. Thus, for the present study, there was a total of 574 ($n = 278$ boys, $n = 296$ girls; $M = 17.84$ years, $SD = .46$ years) participants at wave 4. There were 421 participants who were born in the United States, 151 who were born in Mexico, and 2 participants whose mothers did not report on their nativity. Participants were given \$60.00 each for their participation.

Procedures

The majority of the computer-assisted interviews were conducted at home. Most interviewers were bilingual and conducted the interview either in English or Spanish depending on participants' preferences.

Measures

Mexican American Biculturalism Scale—Participants completed the 27-item, Mexican American Biculturalism Scale (Basilio et al., 2014), which consists of bicultural comfort, bicultural facility, and bicultural advantages subscales. Participants indicated which ethnic group label they identified with (i.e., “Mexican” or “Mexican American”) and this self-selected label was inserted when appropriate throughout the scale. The response scale for bicultural comfort ranged from 1 (e.g., “I am only comfortable when [I need to speak in English/Spanish].”) to 5 (e.g., “I am always comfortable in both of these situations.”). The response scale for bicultural facility (e.g., “Needing to speak Spanish sometimes and English other times is”) ranged from 1 (very easy) to 5 (very difficult), and items were reverse coded.

The response scale for bicultural advantages (e.g., “For me, being able to speak Spanish sometimes and English other times has”) ranged from 1 (many advantages) to 5 (many disadvantages), and items were reverse coded. Biculturalism was calculated by calculating the mean of all 27 items ($\alpha = .90$). The scale demonstrates good reliability and validity in prior research (Basilio et al., 2014).

Prosocial tendencies—Participants completed the Prosocial Tendencies Measure (PTM; Carlo & Randall, 2002). This scale contains items assessing six different forms of prosocial tendencies: public (3 items: $\alpha = .75$, e.g., “*When other people are around, it is easier for you to help others in need.*”), emotional (5 items; $\alpha = .87$, e.g., “*It makes you feel good when you can comfort someone who is very upset.*”), dire (3 items: $\alpha = .72$, “*You tend to help people who are in a real crisis or need.*”), anonymous (4 items: $\alpha = .78$, “*You prefer to donate money without anyone knowing.*”), altruistic (3 items: $\alpha = .75$, “*You feel that if you help someone, they should help you in the future.*”), and compliant (2 items; $\alpha = .69$, “*You never wait to help others when they ask for it.*”). The response scale (ranged from 1 (not at all) to 5 (a lot)). Subscale scores were computed by calculating the means of items within each subscale, with higher scores indicating a greater tendency to help. The reliability and validity of the scale has been established in prior research, and there is prior evidence of measurement invariance across ethnicities (U.S. Mexican and European American adolescents) and gender (Carlo et al., 2010).

Positive self evaluations—In this study, we used two measures as indicators of self evaluations. Participants completed the Rosenberg (1965) Self-Esteem Scale ($\alpha = .85$). This widely used measure consists of 10-items designed to assess positive evaluations of the self. The response scale for each item (e.g., “I feel that I am person of worth, at least the same as others”) ranged from 1 (strongly disagree) to 4 (strongly agree). Negatively worded items were reverse coded and total score was computed by calculating the mean of all items, with higher scores indicating higher self-esteem. Participants also completed the generalized self-efficacy subscale of the Self-Efficacy Scale (Sherer & Adams, 1983). This measure was designed to assess expectations of self-efficacy and one’s willingness to persist in behavior. The response scale for each item (e.g., “When you decide to do something, you go right to work on it) ranged from 1 (strongly disagree) to 5 (strongly agree). The total score was computed by calculating the mean of all items with higher scores indicating higher generalized self-efficacy.

Gender and nativity—Interviewers recorded participants’ gender. Mothers reported on where the adolescent participants were born.

Results

Descriptive analyses revealed that the adolescents in our sample were moderately high in biculturalism ($M = 3.84$, $SD = .57$) and that there was considerable variability in the biculturalism scores. The participants also reported moderately high engagement in compliant ($M = 3.85$, $SD = .89$), dire ($M = 3.82$, $SD = .79$), emotional ($M = 3.81$, $SD = .80$), anonymous ($M = 3.07$, $SD = .94$), public ($M = 2.67$, $SD = .95$), and altruistic ($M = 3.72$, $SD = .90$) prosocial tendencies. In addition, the participants in the sample also reported

relatively high general self-efficacy ($M = 3.69$, $SD = .48$) and self-esteem ($M = 3.33$, $SD = .44$).

There were no gender differences in biculturalism, $t(570) = -.16$, $p = .87$. Girls scored higher than boys on compliant, $t(570) = 3.50$, $p < .001$, dire, $t(570) = 2.76$, $p < .01$, emotional, $t(570) = 3.54$, $p < .001$, and altruistic, $t(570) = 6.23$, $p < .001$ prosocial tendencies. In contrast, boys scored higher than girls on public prosocial tendencies, $t(570) = -4.54$, $p < .001$. No gender differences emerged for anonymous prosocial tendencies $t(570) = .61$, $p = .54$. Boys reported higher self-esteem than girls, $t(570) = -2.30$, $p < .05$ (Table 2). However, there were no gender differences in general self-efficacy, $t(570) = -1.53$, $p = .13$.

There were no nativity differences in biculturalism, $t(570) = -.18$, $p = .86$. Additionally, there were no nativity differences that emerged for compliant, $t(570) = .97$, $p = .90$, dire, $t(570) = 1.31$, $p = .19$, emotional, $t(570) = .74$, $p = .46$, public, $t(570) = -.30$, $p = .76$, and altruistic, $t(570) = .87$, $p = .39$ prosocial tendencies. Those born in the U.S. scored significantly higher on anonymous prosocial tendencies (Table 2) than those born in Mexico, $t(570) = 2.54$, $p < .05$. There were no nativity differences in self-esteem, $t(570) = -.98$, $p = .33$, or general self-efficacy, $t(570) = -.93$, $p = .35$.

Table 1 presents the zero-order correlations among biculturalism and the positive outcome variables. Due to our large sample size, some of the correlations were quite modest but statistically significant. Thus, we focus our discussion only on correlations that are significant at the $p < .001$ level and more substantial in magnitude (above .15). The results of our preliminary analyses showed that indeed biculturalism is positively correlated to the outcome variables. Specifically, biculturalism is positively correlated to compliant, dire, emotional, and anonymous prosocial tendencies. It is most strongly correlated to compliant, dire, and emotional prosocial tendencies, which are the three subscales that have been shown to be most strongly correlated to traditional Mexican values (Calderón-Tena et al., 2011). Surprisingly, it had no association to public or altruistic prosocial tendencies, which have been shown in the past to be related to U.S. mainstream values (Armenta et al., 2011). Thus, in subsequent analyses, we created a latent variable of prosocial tendencies comprising of only those prosocial tendencies that were most strongly correlated to biculturalism (i.e., compliant, dire, and emotional prosocial tendencies). Biculturalism was also positively correlated to self-esteem and general self-efficacy. We also found that the dire, emotional, and compliant subscales of prosocial tendencies, which comprised our latent variable of prosocial tendencies, were all positively correlated to general self-efficacy and self-esteem.

Data Analyses for the Mediation Models

The competing mediational models were examined through structural equation modeling (SEM) with Mplus 7.11 software using maximum likelihood estimation and bootstrapping procedures. Conventional standards indicate that model fit is considered good if the Comparative Fit Index (CFI) is greater than or equal to .95 (greater than or equal to .90 for adequate fit), the Root Mean Square Error of Approximation (RMSEA) is less than or equal to .06 (less than or equal to .08 for adequate fit), and the Standardized Root Mean Square

Residual (SRMR) is less than or equal to .08 (less than or equal to .10 for adequate fit) (Hu & Bentler, 1999).

Model 1: Prosocial tendencies as a mediator—The first model of biculturalism leading to positive self evaluation (indicated by general self-efficacy and self-esteem) via prosocial tendencies was examined. The results indicated that the proposed model had good fit, $\chi^2(14) = 50.29, p < .001, CFI = .98, RMSEA = .07 (.05, .09), SRMR = .03$ (Figure 1). The model showed that greater degree of biculturalism was positively associated with greater prosocial tendencies and positive self evaluation. Prosocial tendencies were also positively associated with self evaluation. We examined the total, direct, and indirect paths with 95% confidence intervals using bootstrap procedures (MacKinnon et al., 2008). The significant total effect pathway was .41, $p < .001$ (CI = .34 to .47), 85.4% of which was a significant direct effect pathway (.35, $p < .001$; CI = .29 to .42), and 14.6% was a significant indirect effect (i.e., cross-product) pathway (.06, $p < .001$; CI = .03 to .09).

To examine whether gender moderated these effects, we compared an unconstrained model that allowed the path coefficients to vary across gender to a model that constrained the path coefficients to be equal across boys and girls. Moderation by gender was deemed to be present if the unconstrained model fit significantly better than the constrained model as indicated by the Chi-square difference test and substantial differences in the practical fit indices. The model constraining the path coefficients to be equal for boys and girls fit the data well, $\chi^2(39) = 73.36, p < .001$; CFI = .98; RMSEA = .06 (.04, .08), and SRMR = .05. In addition, the chi-square difference test between the constrained and unconstrained model was not significant, $\chi^2(df = 8) = 5.80, p = .67$; and the practical fit indices were not markedly poorer. Thus, there was no moderation by gender.

We also examined whether nativity moderated these effects. The same procedures were used as our tests for moderation by gender. The model constraining the path coefficients to be equal for those born in the United States and Mexico fit had acceptable data fit, $\chi^2(39) = 75.07, p < .001$; CFI = .98; RMSEA = .06 (.04, .08), and SRMR = .06. In addition, the chi-square difference test between the constrained and unconstrained model was not significant, $\chi^2(df = 8) = 10.04, p = .26$, and the practical fit indices were not markedly poorer. Thus, there was no moderation by nativity.

Model 2: Self evaluation as a mediator—The alternative model of biculturalism leading to prosocial tendencies via self evaluation was examined using the same procedures as the first model. The results indicated that the proposed model had good fit, $\chi^2(14) = 50.29, p < .001, CFI = .98, RMSEA = .07 (.05, .09), SRMR = .03$ (Figure 2). The model showed that greater degree of biculturalism was positively associated with positive self evaluations and prosocial tendencies. Positive self evaluation was also positively associated with prosocial tendencies. We examined the total, direct, and indirect paths 95% confidence interval using bootstrap procedures. The significant total effect pathway was .47, $p < .001$ (CI = .35 to .60), 46.8% of which was a significant direct effect pathway (.22, $p < .05$; CI = .03 to .41), and 53.2% was a significant indirect effect pathway (.25, $p < .001$; CI = .12 to .39).

Moderation Analyses

We conducted analyses to examine whether gender or nativity moderated these effects for the second model and used the same procedures as those used in the first model. For gender, the model constraining the path coefficients to be equal for boys and girls fit the data well, $\chi^2(39) = 74.13, p < .001$; CFI = .98; RMSEA = .06 (.04, .08), and SRMR = .05. In addition, the chi-square difference test between the constrained and unconstrained model was not significant, $\chi^2(df = 8) = 6.57, p = .58$, and the practical fit indices were not markedly poorer. Thus, there was no moderation by gender.

For nativity, the model constraining the path coefficients to be equal for those born in the United States and Mexico fit the data well, $\chi^2(39) = 74.35, p < .001$; CFI = .98; RMSEA = .06 (.04, .08), and SRMR = .04. In addition, the chi-square difference test between the constrained and unconstrained model was not significant, $\chi^2(df = 8) = 9.32, p = .32$, and the practical fit indices were not markedly poorer. Thus, there was no moderation by nativity.

Discussion

The primary purpose of the present study was to test two conceptual models that examined how biculturalism may be associated with positive outcomes in U.S. Mexican adolescents. Specifically, we examined how biculturalism is related to both prosocial tendencies and positive self evaluations. We found support for both hypothesized mediational models. However, the differences between the two models in terms of the magnitude of the indirect effects provides stronger support for positive self evaluation as a mediator for the associations between biculturalism and prosocial tendencies than for a mediational effect of prosocial tendencies on the relations between biculturalism and positive self evaluations. Biculturalism was also positively related to both prosocial tendencies and positive self evaluation. Our findings yield supportive evidence that biculturalism is adaptive.

Mediation Model Findings

The first proposed mediation model examined whether engagement in prosocial tendencies accounted for the relations between biculturalism and positive self evaluations. This model was supported, suggesting that biculturalism is associated with prosocial tendencies, which in turn is related to positive self evaluations. These findings are consistent with previous findings that prosocial tendencies may improve evaluations of self and that engaging in prosocial tendencies may improve overall mood (Gecas, 2001; Laible et al., 2004; Weinstein & Ryan, 2010).

The second model tested whether positive self evaluations mediated the relations of biculturalism to prosocial tendencies. This model was also supported, suggesting that bicultural individuals who view themselves positively are also more likely to engage in prosocial tendencies. These findings are also in accord with findings in which investigators found individuals in positive moods and high self worth are more likely to engage in prosocial tendencies (Caprara & Steca, 2005; Caprara & Steca, 2007). Taken together, these

findings extend previous research by suggesting that there are at least two pathways by which biculturalism is associated with positive outcomes for U.S. Mexican adolescents.

Since both models were supported, it is possible that the relations between prosocial tendencies and positive self evaluations are bidirectional. Engaging in prosocial tendencies might facilitate positive self evaluations but positive self evaluations may also incline individuals to be more prosocial. However, the relative difference between the two tested models in the magnitude of the indirect effects suggest that positive self evaluations may have a larger impact on prosocial tendencies, rather than the reverse. Perhaps this is because having a positive self evaluation may enhance one's propensity to engage in prosocial tendencies (Carlson & Miller, 1987). In contrast, engaging in prosocial tendencies may not always incur positive social feedback from others (Carlo & Randall, 2001), and thus may not always enhance positive self evaluation. For example, others may view one's prosocial actions as unwarranted or artificial, and may respond negatively to these prosocial actions. Evidence from the present study supports the notion that U.S. Mexican youth may develop greater propensity to engage in prosocial tendencies, which may increase positive self evaluations across time.

Direct Effect Findings

The findings of the present study are consistent with prior theory and research that demonstrates positive adjustment and well-being for bicultural youth (e.g., Chen, Benet-Martinez, & Bond, 2008). Positive relations between biculturalism and both positive self evaluations and prosocial tendencies were found. However, the present results extend prior findings by adding the examination of social behavioral tendencies, as well as, psychological well being. Specifically, with regard to the direct link between biculturalism and positive self evaluations, the findings are consistent with research that show that biculturalism is related to psychological well-being (David, Okazaki, & Saw, 2009). This link suggests that being bicultural may boost Latino youth self-esteem, which may be due to bicultural youth feeling valued by members of both cultural groups. Because adolescence is an important period of identity development (Erikson, 1980), the present and prior findings suggest that providing supports and encouragement of biculturalism for Latino youth may be a worthwhile pursuit for parents, educators, mental health professionals, and policy makers.

The current findings show a relatively complex association between biculturalism and prosocial tendencies. Traditional conceptual models of prosocial development suggest that bicultural individuals may be prone to exhibit high levels of all forms of prosocial tendencies due to related abilities in recognizing multiple perspectives, enhanced cultural switching skills, and integrative complexity—skills that require understanding and considering the perspectives of needy others (i.e., perspective taking) (see Knight, Carlo, Basilio, & Jacobson, 2014, for a discussion). However, because biculturalism was significantly related only to forms of prosocial tendencies closely linked to traditional Mexican culture but not those closely linked to traditional U.S. mainstream values reduces the viability of these general sociocognitive explanations. Perhaps the present findings are due to the possibility that biculturalism broadens the perspective for those who are part of the ingroup (e.g., family) more so than for outgroup members. The present findings also suggest that dual

cultural identification may not only be beneficial for ethnic minority youth but also for individuals who interact with, and are the recipients of, the prosocial tendencies of bicultural individuals.

Gender and Nativity Findings

Generally, girls reported engaging in more prosocial tendencies (except public and anonymous) than boys. Boys reported higher self-esteem than girls, though no gender differences emerged for general self-efficacy. These findings are in accord with prior research on gender differences (e.g., Eisenberg et al., 2006). In contrast, in general, there were no differences in any of the variables (except anonymous prosocial tendencies) for those born in the United States and Mexico. In addition, we also found no moderation by gender or nativity in the relations among biculturalism, positive self evaluations, and prosocial tendencies. Thus, biculturalism may psychologically and behaviorally benefit all U.S. Mexican youth.

Study Limitations

There were several significant limitations to the present study. The cross-sectional design limits our ability to draw strong confident conclusions regarding the suggested mediation effects and the directionality of effects. More sophisticated study designs (e.g., longitudinal, experimental manipulations) are needed to better discern direction of effects. Moreover, although prior evidence demonstrates weak and nonsignificant relations between social desirability and prosocial tendencies (e.g., Carlo et al., 2003), the present findings may be subject to social desirability pressures. The reliance on self-report measures can result in shared method variance, which may affect the magnitude of effect sizes. Future studies using multiple reporters or multiple methods (e.g., observations) are needed to replicate the present findings. And finally, given the call for research that examines more specific aspects of biculturalism, a promising avenue for future research is to examine more specific dimensions of biculturalism that may be predictive of positive outcomes in U.S. Latino youth (see Acevedo-Polakovich et al., 2014).

Despite these limitations, the findings are valuable in extending our understanding how biculturalism is related to positive outcomes in U.S. Mexican adolescents. Furthermore, the findings yield additional evidence that biculturalism may be psychologically and behaviorally adaptive for U.S. Mexican youth though further research is needed to examine whether these consequences are a direct function of integrative complexity. This study further highlights the importance of encouraging and supporting U.S. Latino youth to retain their ethnic culture as they navigate between their cultures. The present study adds to the previously stated need (e.g., Cabrera et al., 2012) to adopt strengths-based perspectives to offset the deficit and pathology focus of many prior studies with U.S. Latino populations.

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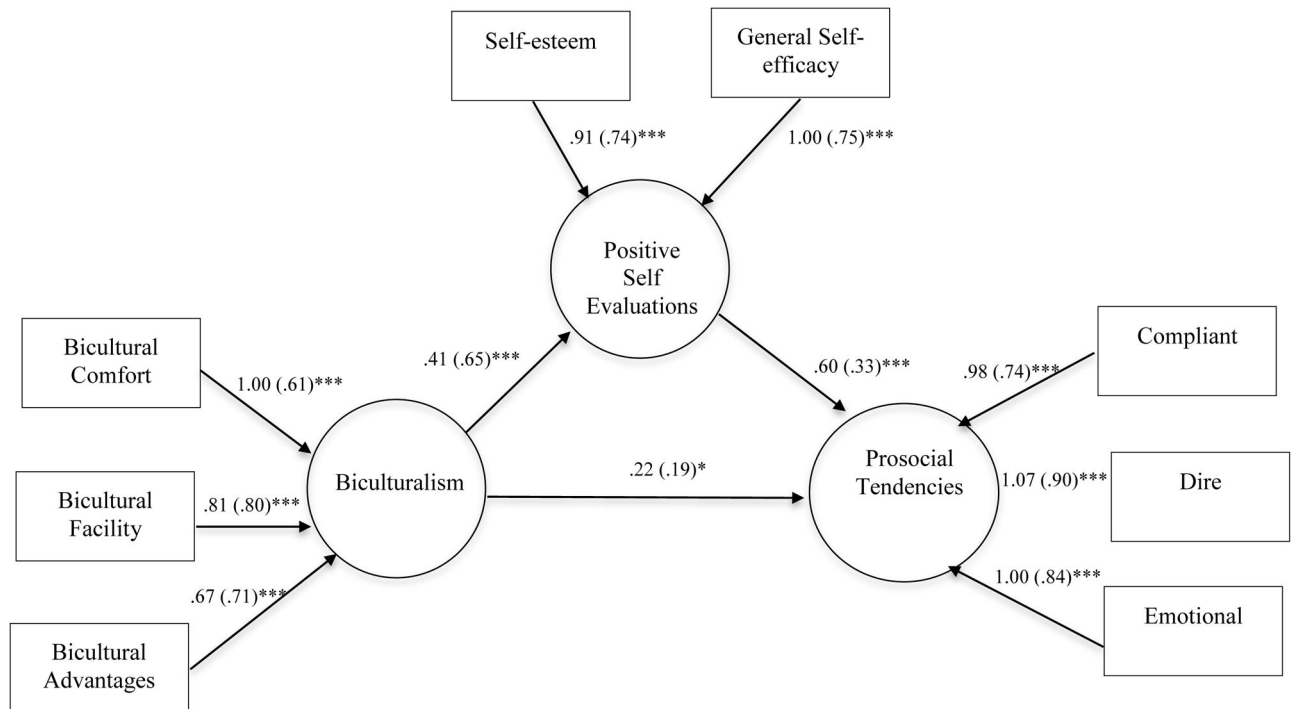


Figure 1. Structural equation modeling results for the mediating role of positive self evaluation on the association of biculturalism to prosocial tendencies. Numbers reported are unstandardized (standardized) factor loadings and are not significantly different across gender and nativity. $\chi^2(14) = 50.29, p < .001, RMSEA = .07 (.05, .09), CFI = .98, SRMR = .03.$

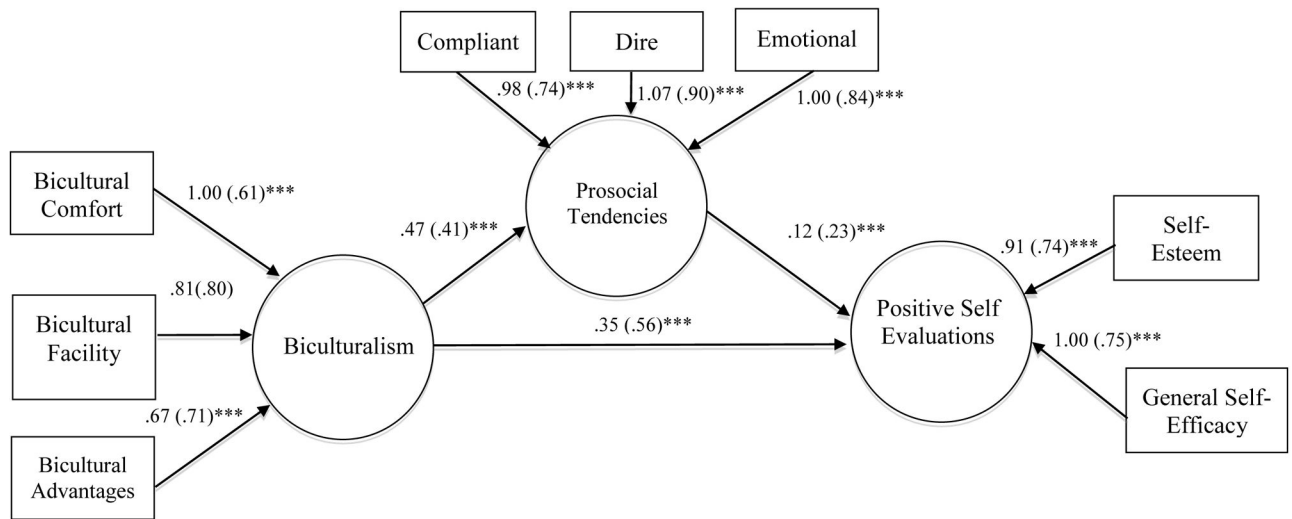


Figure 2. Structural equation modeling results for the mediating role of prosocial tendencies on the association of biculturalism to positive self evaluation. Numbers reported are unstandardized (standardized) factor loadings and are not significantly different across gender and nativity. $\chi^2(14) = 50.29, p < .001, RMSEA = .07 (.05, .09), CFI = .98, SRMR = .03.$

Table 1

Correlations Among Biculturalism, Prosocial Tendencies, and Positive Self Evaluations

	Bicultural Comfort	Bicultural Facility	Bicultural Advantages	Compliant Prosocial	Dire Prosocial	Emot. Prosocial	Anonymous Prosocial	Public Prosocial	Altruistic Prosocial	Self-esteem
Bicultural Facility	.46									
Bicultural Advantages	.40	.58								
Compliant Prosocial	.23	.24	.30							
Dire Prosocial	.22	.24	.26	.66						
Emotional Prosocial	.25	.25	.30	.61	.76					
Anonymous Prosocial	.09	.13	.16	.39	.42	.42				
Public Prosocial	.08	.12	.15	.12	.22	.28	.16			
Altruistic Prosocial	.12	.01	.03	.06	-.03	-.04	-.02	.50		
Self-esteem	.36	.41	.32	.25	.26	.23	.06	.10	.08	
General Self-efficacy	.36	.35	.32	.36	.32	.30	.17	.02	.13	.56

Note. Correlations above .15 are significant at the $p < .001$ level and are bolded. Correlations between .12 and .14 are significant at the $p < .01$ level.

Table 2

Means (standard deviations) of public, emotional, altruistic, dire, compliant, anonymous prosocial tendencies, and positive self evaluations by gender and nativity.

	Girls	Boys	US Born	Mexico Born
Bicultural Comfort	3.56 (.95)	3.49 (.96)	3.55 (.95)	3.47 (.97)
Bicultural Facility	3.83 (.61)	3.92 (.56)	3.87 (.58)	3.89 (.62)
Bicultural Advantages	4.11 (.53)	4.10 (.57)	4.08 (.55)	4.17 (.54)
Compliant	3.97 (.84)	3.72 (.92)	3.87 (.89)	3.79 (.89)
Dire	3.91 (.79)	3.73 (.78)	3.84 (.80)	3.75 (.77)
Emotional	3.92 (.79)	3.69 (.79)	3.82 (.81)	3.77 (.77)
Anonymous	3.09 (1.00)	3.05 (.88)	3.13 (.94)	2.91 (.92)
Public	2.50 (.94)	2.86 (.92)	2.67 (.98)	2.69 (.86)
Altruistic	3.93 (.84)	3.48 (.90)	3.73 (.89)	3.66 (.92)
Self-Esteem	3.29 (.45)	3.38 (.43)	3.32 (.45)	3.36 (.41)
Self-Efficacy	3.66 (.47)	3.72 (.50)	3.68 (.49)	3.72 (.47)