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**The U.S. Immigrant Paradox: Desistance from Delinquency Facilitated by Latinx
Youths' Preference for Parental Preferred Language**

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Abstract

Rooted in the U.S. immigrant paradox and shared language erosion theories, the current study examined whether Latinx youths' preference for parental preferred language moderated the prediction from parental affect to relative change in youths' delinquent behavior. Data were from a subsample of the Pathways to Desistance Study. At baseline, adjudicated Latinx youths ($M_{age} = 16.1$, $N = 454$, 12% female) reported on their delinquent behavior and perceived parental affect using the Self-Report of Offending scale (SRO) and Quality of Parental Relationships Inventory, respectively. Delinquent behavior was reported again using the SRO after 7 years. The moderating effect of a common language within Latinx father-offspring dyads on the prediction from paternal warmth to youth desistance was identified in the interaction tests but not in the simple slopes tests. Parental hostility predicted a relative increase in youths' delinquency among parent-offspring dyads wherein the youth did not typically use the parent's preferred language (i.e., English or Spanish) but not among parent-offspring dyads wherein a common language was shared. That is, among high-risk Latinx youths, a parent-youth common language showed buffering effects against parental hostility. Practical, theoretical, and methodological implications of the findings are discussed.

Keywords: Desistance from delinquency, Common language, Latinx families, Parental affect, Parenting practices, The U.S. immigrant paradox

The U.S. Immigrant Paradox: Desistance from Delinquency Facilitated by Latinx Youths' Preference for Parental Preferred Language

Immigrants account for 14.3% of the U.S. population (Pew Research Center, 2024), which has made the United States a culturally diverse nation, wherein various languages are used among different ethnic groups. Most first-generation immigrants have their own heritage languages (Pew Research Center, 2023), and 22% of U.S. households are with at least one resident speaking a language other than English (U.S. Census Bureau, 2019). Among U.S. immigrants, Latinxs have been facing unique racial discrimination (Azmita, 2021). Their well-being is worth investigating. For example, the fact that their coethnic later generations does not fare well than their earlier generations has been puzzling (Marks & García Coll, 2018). Shared language erosion theory (Cox et al., 2021) has indicated that first-generation Latinx immigrants have the strongest tendency to retain their heritage language (i.e., Spanish), whereas the decreases in Spanish use among second and third-plus generations are pronounced (Cox et al., 2025). Latinx youths become adept at speaking English due to exposures to school, media, and friends, but their abilities to speak their heritage language decline, whereas their parents improve English abilities at slower rates but better maintain their heritage language (Lin et al., 2025). This erosion of a common language has hindered communications between U.S. Latinx family members across generations (Cox et al., 2025).

The U.S. Immigrant Paradox: The Generational Differences

In a U.S. nationally representative study (Pew Research Center, 2023), 93% of first-generation Latinxs self-reported that they can carry on a conversation in Spanish (i.e., understanding and speaking it well), whereas only 69% of second-generation and 34% of third-plus-generation Latinxs reported so. Despite Latinxs' improvements in English proficiency and

socioeconomic status (SES) over generations, their increased levels of acculturation or later immigrant generation statuses¹ are unexpectedly associated with negative outcomes, such as youth delinquent and criminal acts² (e.g., Jiang & Pequero, 2017). Partially due to racial disparities associated with acculturative stress, systematic discrimination (e.g., Basto-Pereira & Farrington, 2022; Walker et al., 2016), and segregation or exclusion (Berry, 2023), Latinxs accounted for 47%³ of sentenced federal offenders in the United States (U.S. Sentencing Commission, 2022), where disproportionately fewer prisoners are first-generation immigrants (Rumbaut et al., 2019). That is, people who are U.S.-born, are, in fact, more likely to be incarcerated than those who are not U.S.-born. Labeling immigrants, especially those who are first-generation, to be criminals appears to be nothing but stigmatization. Bicultural youths showing higher levels of both enculturation and acculturation were not statistically underrepresented among English-speaking Mexican American youth offenders (Knight et al., 2009). These findings, albeit counterintuitive, are aligned with the U.S. immigrant paradox theory, "...a U.S. population phenomenon wherein more recently immigrated children and youth fare better in their developmental competencies...than their more highly acculturated coethnic peers, in spite of their more disadvantaged social contexts" (Marks & García Coll, 2018, p. 95). Based on this theory, we focused on variation within Latinxs in the United States instead of across ethnicities (e.g., Latinx vs. Caucasian) or immigrants in non-U.S. countries. Also, we focused on Latinxs because the immigrant paradox has not occurred among other U.S.

¹ Immigrant generation status can be categorized into first, second, and third generations, as well as so forth, which essentially refers to the child's nativity concerning immigration. A first-generation child was born abroad, typically with both parents born abroad. A second-generation child was born in the United States, with one or both parents born abroad. A third-generation child was born in the United States, with both parents U.S.-born. (García Coll & Marks, 2012, p. 13)

² We are aware of the discriminative labels on Latinxs (e.g., an implied causal relation between Latinx cultural values and criminal activities), but this study has nothing to do with this spurious causal relation.

³ This is a concerning number that we cannot neglect. Although laborers from Latin America have been stigmatized as criminals (Rumbaut et al., 2019), most incarcerated people are not born in the United States.

immigrants (e.g., Chinese) in the same way partly due to different cultural values and meanings of using heritage languages (e.g., deSouza et al., 2023).

According to Marks and García Coll (2018), the U.S. immigrant paradox (hereafter: the immigrant paradox) includes later Latinx generations manifesting more delinquent behaviors than their earlier coethnic generations. Although this theory has been echoed by some researchers (e.g., Jiang & Pequero, 2017), more clarity is needed considering various existing definitions. For example, some studies emphasized an *immigrant advantage perspective*, wherein first-generation immigrants' individual strengths (e.g., resilience) and environmental protective factors (e.g., cultural values) are promoted (e.g., Cox et al., 2023; deSouza et al., 2023; Tilley et al., 2021), whereas others underlined immigrants' worse developmental outcomes among later generations than their coethnic earlier generations (e.g., Zhang et al., 2021). These hypotheses are essentially grounded in the same immigrant paradox theory. Although the trend in psychology has been toward addressing the immigrant advantage view to prevent stigmatization or xenophobia (e.g., Cox et al., 2023), we focused on the hypothesized generational differences because of an observed collective confusion about this hypothesis. Although scholars have highlighted the importance of language preference within offspring-parent dyads among immigrant families (e.g., Cox et al., 2025), studies on how language-match affects Latinx youths are scarce (e.g., deSouza et al., 2023). As a result, we examined part of the immigrant paradox theory by looking at language-match among Latinx parent-youth dyads.

Desistance from Delinquency: Parental Affect and Parent-Youth Communication Matter

Researchers have been focused on the onset of delinquency, incidence of delinquency (i.e., events and rate), career length of a criminal, crime trajectory, and etiology of delinquency (e.g., Forrest, 2014; Laub & Sampson, 2001; Moffitt & Caspi, 2006; Natsuaki et al., 2008).

However, the etiology of desistance from delinquency (i.e., reduction in youth offending frequency over time) has been relatively unexamined. Delinquent and criminal behaviors often emerge and peak during adolescence and decline in emerging adulthood, wherein most youths previously engaging in delinquent and criminal behaviors desist by reducing the frequencies or cease doing so (e.g., Moffitt, 2018; Walters, 2015).

Across ethnicities (e.g., Latinx, Caucasian), two classes of offenders are well-documented: life-course-persistent offenders (i.e., 3% to 17% of adolescent offenders) and adolescent-limited offenders (i.e., at most 82% of adolescent offenders; Jolliffe et al., 2017). Although persistent offending is believed to be caused by neuropsychological problems and social contexts, adolescent-limited offenders are especially influenced by family environment (e.g., positive parental affect; Basto-Pereira & Farrington, 2022; Gault-Sherman, 2012; Hovee et al., 2007). In addition to physical factors (e.g., adolescent hypervigilant limbic areas, incompletely myelinated frontal lobes; Steinberg, 2010), the etiology of the latter class is believed to be related to social learning (Moffitt & Caspi, 2001). When parenting practices are inconsistent or with negative affect, such as high parental hostility (e.g., criticizing, shouting, yelling at the offspring; Conger et al., 1994) and low parental warmth (e.g., low tendencies to be supportive, affectionate, or sensitive to the offspring needs; Schofield et al., 2012), youths, especially in the second class, are more likely to commit crimes than those receiving parenting with positive affect (e.g., parental warmth; Hovee et al., 2009). Specifically, parental hostility has been shown to be a risk factor for offspring delinquency across ethnicities (e.g., Conger & Conger, 1994; Vaughan et al., 2021; Wu et al., 2014).

Researchers have investigated the underlying mechanisms of desistance and individual characteristics that promote or inhibit desistance in early adulthood more than in emerging

adulthood (e.g., Copp et al., 2020) partly because the latter stage is relatively new (Arnett & Mitra, 2020). Although a law-abiding spouse, stable employment, and self-identity are associated with early adults' desistance, these may not apply to emerging adults who still learn how to maintain intimate relationships, contribute to society through work, and explore self-identities. Therefore, it is important to look at how youth desistance from adolescence to emerging adulthood is influenced by familial factors (e.g., parental affect, parent-youth communication).

Communication between the parent and offspring is central to theories of parenting (e.g., Parke et al., 2019), especially among Latinx families (Perreira et al., 2006), and relevant to theories of delinquency (Hirschi, 2004; Moffitt, 2018). Specifically, parent-offspring bonds serve as *informal sanctions* (i.e., sanctions not administered by the justice system) among the strongest predictors of offspring desistance (Paternoster et al., 1983). When youth offenders contemplate desisting, they seek support from parents rather than peers (Shapland & Bottoms, 2011). One driver of their ceasing delinquent behavior is a perceived shift to viewing delinquent behavior as punishing instead of rewarding (Matthys et al., 2013). Parents having open communication with offspring likely influence youths to view delinquent acts as unrewarding (Schroeder et al., 2010). Also, relationships with parents have been found to facilitate offspring desistance through emerging adulthood (Copp et al., 2020; Giordano, 2016). Therefore, we assumed that positive parental affect and better parent-offspring communication fostered by a shared language would help Latinx youths desist in emerging adulthood.

Language Preference, Language Proficiency and Ethnic Identity among Latinxs

Although highly correlated, language preference and proficiency may be qualitatively different, especially in predicting immigrants' health or well-being (Gee et al., 2010; Schofield et al., 2017). From a psychological acculturation perspective (Berry, 2023), shift in language

preference may be a behavioral change (i.e., relatively easily achieved tasks, such as ways of speaking) rather than a psychocultural adaptation (i.e., longer-term tasks that may not be achieved), whereas language proficiency, a component of *biculturalism* (i.e., high levels of adaptation to living interculturally) or *bilingualism* (i.e., using two official languages, such as English in the host country and Spanish in the country of origin), is a robust correlate of healthier behaviors (Berry, 2023; Gee et al., 2010) and likely a psychocultural adaptation.

Although considered to reflect *ethnic identity* (e.g., sense of belonging, positive evaluation, interest, knowledge, involvement in traditional activities in an ethnic group; Phinney, 1996), Latinx youths' language preference or proficiency has been found to be associated with ethnic identities in only a few studies (Geerlings et al., 2015; Phinney et al., 2001). Across these two identified studies,⁴ the correlation between language preference or proficiency and ethnic identity among *1.5-generation* (i.e., who immigrated to the United States before age 13) or later generation Latinx youths were $r_s = .22$ (i.e., a small-to-medium effect size). One study showed that the association between language proficiency and ethnic identity among Mexican Americans ($r = .22$) were smaller than Armenian Americans and Vietnamese Americans ($r_s = .49$ and $.55$; Phinney et al., 2001). The other study showed a similar pattern when language preference instead of language proficiency was examined (Geerlings et al., 2015).

A plausible explanation is that the fact that Asians from countries wherein different heritage languages are used (e.g., Vietnamese in Vietnam, Mandarin in China) may strengthen the association between their preferring a heritage language and ethnic identity, whereas among Latinxs from different countries who share the same heritage language (e.g., Spanish in Mexico and Cuba), this association may be weaker because they do not use Spanish to distinguish their

⁴ The sample of the first study was 2,139 Latinx youths ($M_{age} = 13$), including immigrants from Mexico, Nicaragua, Colombia, and Cuba. The sample of the second study was 88 Mexican Americans ($M_{age} = 15$).

ethnicities. As such, their preferring using English may be less relevant to ethnicity identity than immigrants of other descents (e.g., Asian Americans). Similarly, a recent survey with a nationally representative sample of Latinx adults showed that 78% of Latinxs self-reported that it was not necessary to speak Spanish to be considered Latinx⁵ (Pew Research Center, 2023), which again shows that Latinxs' language preference may reflect their acculturative behavioral change instead of ethnic identity, especially among later generations (Berry, 2023; Schwartz et al., 2020). However, given its theoretical importance, ethnic identity was used as a covariate in the current study.

Match of Language Preference and Communication among Latinx Parent-Youth Dyads

Language-match among Latinx parent-youth dyads has been understudied. The scant research has focused on language proficiency instead of preference (cf. Schofield et al., 2017). Nevertheless, more recent studies and theories such as shared language erosion (Cox et al., 2021; Lin et al., 2025) have explicated the immigrant paradox by focusing on parent-youth communication, especially their language use or match. It appears that match of language preference in the hypothesized generational differences (i.e., later generations are at higher risks) has received renewed attention (Cox et al., 2021; deSouza et al., 2023; Ladd & Parke, 2021).

Although research has examined whether a heritage language (e.g., Spanish) spoken in the family could explain the immigrant paradox (e.g., Turney & Kao, 2012), using only parental (in our supplemental analysis) or youth preferred language (e.g., Allen et al., 2008) as a predictor has failed to explain worse outcomes in later generations. Communication issues may occur more frequently when the parent's preferred language (e.g., Spanish) is different from the offspring's (e.g., English; Cox et al., 2021) because connotations of words may vary by language

⁵ The term used in the original question was Hispanic. We used the term Latinx here for consistency.

(Chen et al., 2021). Thus, it is important to examine language-match among Latinx parent-offspring dyads, wherein parents' cultural values have unique effects on their offspring and vice versa (e.g., Chen et al., 2021; Gonzalez et al., 2018).

Moderation by Common Language on the Predictions of Youth Outcomes from Parenting

The role of fluid communication as a component of Latinx parents' efforts in facilitating their offspring's desistance has been underappreciated. Among Latinx families, the lack of parent-youth preference in a common language appears to weaken the longitudinal association from effective parenting to positive youth outcomes and exacerbate the longitudinal association from hostile parenting to negative youth outcomes. For example, in a sample of Mexican-origin youths, positive parenting predicted a relative decrease in youth substance use into emerging adulthood only when parent-youth dyads expressed preference for the same language (either English or Spanish; Schofield, 2017). This study was limited to foci on parental monitoring and consistent discipline, two known protective factors for youths across ethnicities (e.g., Barber et al., 2005; Hoeve et al., 2009). Thus, the current study fills the gap by examining the moderating effects of parent-youth preference for a common language on the predictions from two dimensions of parental affect to youth desistance from delinquency among Latinx families.

The Current Study

Participants were Latinx youths found guilty of a serious offense in the juvenile or adult court system (almost entirely felony offenses), such as destroying/damaging property and breaking in to steal. Because the ideal developmental stages to examine immigrant paradox are adolescence and beyond (Turney & Kao, 2012), our data spanning from youth ages 16 to 23 are adequate to investigate this issue. We focused on two dimensions of parental affect associated with youth antisocial behavior: warmth and hostility (Conger, 1976; Deardorff et al., 2013).

Based on prior research (e.g., Hoeve et al., 2009; Schofield et al., 2017) and theories (e.g., Cox et al., 2025, Marks & García Coll, 2018), we examined whether the longitudinal association from Latinx youth perceived parental affect to later delinquency would be moderated by language-match within the parent-youth dyad. Specifically, we hypothesized that parental warmth would predict a relative decrease in youths' later delinquency (i.e., desistance) for those who regularly used their parent's preferred language with an effect size larger than those who did not (H1). Also, we hypothesized that parental hostility would predict a relative increase in youths' later delinquency for those who did not regularly use their parent's preferred language with an effect size larger than who did (H2). That is, we anticipated the aforementioned immigrant paradox when the Latinx parent and youth did not prefer the same language (shared language erosion).

Covariates in our analyses include variables correlated with delinquency and language preference in prior studies: parental social position (Conger & Donnellan, 2007), family size and structure (Amato, 2005), an incarcerated parent (Aaron & Dallaire, 2010), and generation status (Rumbaut et al., 2006), as well as youth gender and site of data collection (Broidy et al., 2003). As stated, ethnic identity was also a covariate. Methodologically, advocates for scrutinizing covariates instead of using them as the default operation (e.g., Spector & Brannick, 2011) have been overlooked. Thus, we presented our model results including a priori covariates for replication purposes but eventually those only with statistically significant covariates for parsimony. Also, note that statistical power is reduced when a statistically nonsignificant covariate is present in a model. We attempted to show how different arrangements of covariates would alter results. Although some studies of Latinx families showed that maternal and paternal parenting practices had similar associations with offspring developmental outcomes (Parke et al.,

2004), other studies showed differences (e.g., Leidy et al., 2011). Thus, we did not hypothesize comparability of maternal and paternal affect.

Method

Participants

Data for the analyses were obtained from the Interuniversity Consortium for Political and Social Research (<https://www.icpsr.umich.edu/web/ICPSR/studies/29961>). The current study was considered exempt by the xxx Institutional Review Board because it is a secondary analysis of an existing data set. Because our primary research interest was whether language-match among Latinx youth-parent dyads moderated the longitudinal association from earlier parental affect shown in daily behaviors to later youth desistance, our analytic sample was constrained to Latinx youths ($n = 454$; 12% female) living with at least a parent or an adult caregiver at baseline. Two-hundred and thirty-seven (52%) Latinx youth were from Philadelphia and 217 (48%) were from Phoenix. Seventy-four percent of this analytic sample identified as Mexican American. Forty-three percent lived in two-parent households and 42% lived in a single-parent home. Fifteen percent lived without any biological parent (e.g., living with adult relatives).

Thirty-nine percent of mothers and 52% of fathers were born outside the United States (i.e., first-generation immigrants), and 61% of mothers and 48% of fathers are second- or later-generation immigrants. Forty-four percent of both biological parents are first-generation, 35% of both are second- or later-generation, and 21% of them consist of one first-generation and one second- or later-generation parent. Only 35% of biological mothers and 31% of biological fathers had at least a high school degree. Twenty percent of biological mothers and 34% of biological fathers had been arrested or jailed at some point. At baseline, the mean age of the participants was 16.0 ($SD = 1.1$) and their onset of self-reported offending was 10.7 years ($SD = 2.0$). Forty-

six percent of the participants were interviewed at home, 50% were in a facility (e.g., jail, prison, detention), and 4% were in a public place (e.g., a library).

Procedure

The original study was a multi-site longitudinal investigation following 1,354 adjudicated delinquents (14 % female) when they transitioned from adolescence to emerging adulthood (Mulvey & Schubert, 2012). Individuals committed an offense for which they were petitioned to adult or juvenile court in Philadelphia, Pennsylvania or Phoenix, Arizona. Youths between 14 and 17 years of age committing the offense qualifying them for enrollment were selected for potential enrollment after a review of court files, but they did not have to be under age 18 when they participated in the original study. Interviewers contacted eligible youths and their parents to know these youths' interests in participation. Twenty percent of the eligible youths declined to participate. Informed consent was obtained from each participant, and parental consent was obtained for youths under age 18. Participating youths were paid \$50 for the baseline interview and \$150 for the follow-up interview. Data were collected using computer-assisted interviews (approximately two hrs for each session), during which trained interviewers read items aloud to avoid participants' comprehension or reading difficulties. These self-reported offense data were validated by collateral reporters (e.g., parents of youths) and official records, which limits social desirability bias in these data.

Measures

Delinquent Behavior

At baseline and seven years later, youths self-reported on an adaptation of the Self-Report of Offending scale (SRO; Huizinga et al., 1991), which consisted of 24 items regarding adolescent involvement in types of crimes. For each endorsed item, follow-up questions were

triggered to collect detailed information on the type of reported offense (e.g., “How many times have you done this in the past year?”). Because two items (e.g., “ever went joyriding”) were added after a large number of participants had completed interviews, the total SRO scores were computed with only 22 items to prevent missingness problems. Regardless of variety, the sum of the 22 items (i.e., a count variable) was used as a cumulative index of delinquent behavior at each assessment, as suggested by Bendixen et al. (2003).

Parental Affect

The Quality of Parental Relationships Inventory (Conger et al., 1994) has been frequently used across nondelinquent and delinquent youth samples to measure parental affect with adequate reliability and external validity (Milan et al., 2017). In the current study, this measure was adapted to a 4-point Likert scale ranging from “4 = *Always*” to “1 = *Never*.” At baseline, youths rated their parents’ affect. The maternal and paternal hostility subscales each contained 12 items. Sample items included, “How often does your mother get angry at you?” and, “How often does your father throw things at you?” The internal consistencies for the original sample were adequate ($\alpha = .85$ for maternal hostility; $\alpha = .88$ for paternal hostility). The maternal and paternal warmth subscales each consisted of nine items. Sample items included, “How often does your mother let you know she really cares about you?” and, “How often does your father tell you he loves you?” The internal consistencies for the original sample were also adequate ($\alpha = .92$ for maternal warmth; $\alpha = .95$ for paternal warmth). Although we could not obtain the reliability coefficients for the analytical sample, the same measures were shown to be with adequate reliabilities in another sample of predominately Latinx youth offenders (e.g., Simmons et al., 2019; Ray et al., 2017): maternal hostility ($\alpha = .84$), paternal hostility ($\alpha = .85$), maternal warmth ($\alpha = .90$), and paternal warmth ($\alpha = .91$).

Language Preference and Match

Youths completed nine items on their use of Spanish and eight items on their use of English. These items were adapted from the second version of the Acculturation Rating Scale for Mexican Americans (ARSMA-II; Cuéllar et al., 1995), which is “essentially a behavioral scale and does not expressly assess cognitive aspects of acculturation⁶ (p. 343).” For the current Latinx sample, factor analyses were conducted: A four-factor model that split general cultural orientations into Anglo and Latinx affiliations as well as English and Spanish language preferences fit the data (CFI = .92, TLI = .90, and RMSEA = .069). This supported the construct validities of English and Spanish language preferences used in the current study. Response options ranged from 1 (*not at all*) to 5 (*extremely often or almost always*). Because a score of 4 represents “*much or very often*,” youths with an average score of 4 or above were identified as being accustomed to using that language (85% in using English and 17% in using Spanish). Youths also answered the question, “What language does your mom/female guardian speak the most,” by indicating 1 (*English*) or 2 (*Spanish*). A similar question was asked regarding the father or male guardian. Of the Latinx adolescents, 43% reported Spanish as the language typically spoken by the mother or female guardian, and 54% reported Spanish as the language typically spoken by the father or male guardian. These responses were used to create a grouping variable: 0 (*youth did not typically use the language regularly spoken by the parent*) and 1 (*adolescent typically use the language regularly spoken by the parent*). Sixty-eight percent of the youths typically used their mothers’ or female guardians’ preferred language, and 60% typically used their fathers’ or male guardians’ preferred language.

⁶ As Cuéllar et al. (1995) stated, it is hard to measure cognitive acculturation, so the construct language preference used is not assumed to reflect Latinxs’ ethnic identity in addition to behavioral acculturation.

Covariates

At baseline, youth ethnic identity was measured using the 12-item Multigroup Measure of Ethnic Identity (Phinney, 1992). Response options ranged from 1 (*strongly disagree*) to 4 (*strongly agree*). The internal consistencies for the current sample were adequate for affirmation and belonging ($\alpha = .89$) and identity achievement ($\alpha = .75$). Sample items included, "I am happy that I am a member of the group I belong to" and, "I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs." Parental occupation and education (i.e., parental social position) were coded using a seven-point scale ranging from 1 (*unskilled employees; less than seven years of school*) to 7 (*highly skilled; professional degree; Hollingshead, 1957*). Youths reported on family structure from 1 (*two biological parents living at home*) to 13 (*single biological mother, marital status unknown*). These values were recoded as 0 (*no parents*), 1 (*one parent*), and 2 (*two parents*); the number of people living in their household (i.e., family size; $M = 4.3$, $SD = 2.0$); whether their biological parents were U.S.-born: 0 (*no*) or 1 (*yes*); and whether a biological parent had been incarcerated (i.e., incarcerated parent): 0 (*no*) or 1 (*yes*). Youth gender was coded as 0 (*male*) and 1 (*female*). Site was coded as 0 (*Philadelphia*) and 1 (*Phoenix*). All dichotomous variables were dummy-coded.

Data Analysis

The attrition rate was 16% of the original sample. Of the variables in our analyses, a dummy-coded attrition variable was only correlated with U.S. born parents ($r = -.16$ for mothers and $r = -.24$ for fathers), which shows that Latinx youths of first-generation parents were more likely to drop out of this study. We used Mplus Version 8.3 (Muthén & Muthén, 1998-2017) to estimate the models using robust maximum likelihood (MLR) estimation and model count outcomes with a Poisson distribution. One advantage of ML is analyzing data without discarding

incomplete cases (Enders, 2010). We winsorized the highest 5% of the values of the dependent variable (i.e., delinquent behavior in emerging adulthood) to reduce skewness (i.e., making the maximum number at the 95th percentile). Separate models were run for each parental affect to prevent collinearities from correlated parenting variables. We regressed delinquent behavior in emerging adulthood on delinquent behavior, parental affect, and covariates in adolescence (e.g., Table 1). We examined simple slopes when a statistically significant interaction term was found in Poisson regression (Cohen et al., 2003; see Table 2) and compared the magnitudes of the simple slopes when they were both significantly different from zero (Robinson et al., 2013). We conducted post hoc power analyses using G*Power 3.1 to calculate the number of needed participants to reach a statistical power of .80 or .95 in the regression models when the effect sizes were known after the main analyses.

Results

Descriptive Statistics and Bivariate Correlations

Parent-youth preference for a common language was correlated with parents' born in the United States ($r = .36$ for mothers; $r = .23$ for fathers) and parental social position ($r = -.23$ for mothers; $r = -.16$ for fathers). Table A1 shows the descriptive statistics for variables used in the primary analyses. Delinquent behavior was significantly lower at the follow-up assessment ($M = 42.3$; 59% no delinquent behavior) than at baseline ($M = 122.4$; 7% no delinquent behavior). Mothers and fathers were rated similarly on parental hostility, but mothers were rated higher on parental warmth ($M = 3.2$) than fathers ($M = 2.7$) and less variable on parental warmth ($SD = 0.69$) than fathers ($SD = 0.91$). Youths who regularly used the parent's preferred language and those who did not reported similar levels of maternal warmth ($M = 3.17$ vs. $M = 3.09$, $p = .33$),

paternal warmth ($M = 2.77$ vs. $M = 2.58$, $p = .12$), maternal hostility ($M = 1.63$ vs. $M = 1.62$, $p = .86$), and paternal hostility ($M = 1.53$ vs. $M = 1.52$, $p = .88$).

As stated, we reported model results with and without covariates (Simmons et al., 2011) and excluded covariates step by step to show how we reached the most parsimonious models (i.e., only covariates significantly predicting the outcome variables retained in the models; see Table 1 for the final models and Tables A2 to A4 for the processes). This operation echoes Gelbach's (2016) arguments that conventionally sequential covariate addition may result in different results because the order wherein a set of covariates enter a regression model may substantially affect the results and that the lack of natural ordering in how covariates are causally associated with the dependent variable renders the sequencing arbitrary. As such, a conventional hierarchical regression wherein blocks and incremental changes are used may not work as well as starting with a full model. Specifically, it is hard to judge if a covariate is necessary in a model because samples may be qualitative different (e.g., normative samples vs. clinical samples) across studies. A covariate positively influencing an outcome in one study may negatively influence the outcome in another study.

Table 4 includes all covariates in the current study. Covariates that did not predict a relative change in delinquency, such as family structure ($p = .96$), family size ($p = .32$), and incarcerated parent ($p = .12$) in the maternal hostility model, were excluded from Table A3. The same rationale applied to Table A4, wherein, for instance, youth gender ($p = .11$) was excluded from the maternal hostility model based on results in Table A3. Finally, in Table 1, incarcerated parent ($p = .12$) was excluded from the maternal warmth model based on results in Table A4. Only family size in the paternal hostility model as well as family structure, incarcerated parent, and youth ethnic identity in the paternal warmth model remained. The four models in Table 1

were arguably the most parsimonious ones because every estimated covariate contributed to the explanation of the variance of the corresponding outcome variable. The pseudo- R^2 (McFadden, 1973) for the final models were 10.2% for the maternal hostility model, 17.8% for the maternal warmth model, 38.7% for the paternal hostility model, and 35.1 for the paternal warmth model.

Importantly, with the presence of eight covariates, paternal warmth in Table A2 did not significantly predict a relative change in youth delinquency ($\beta = -0.03$, $p = .89$), whereas this association became significant when generational status, parental social position, family size, youth gender, and site were excluded from Table 1 ($\beta = -0.29$, $p < .001$). This demonstrates that the *purification principle*, the assumption that relations with covariates are closer to the truth than without covariates may not always be correct (Lieberson, 1985, p. 25; Spector & Brannick, 2011) because covariates either affect the outcome in an expected way, does not affect the outcome at all, or affect the outcome in an unexpected way. Researchers should be cautious when adding a set of covariates to models unless they have solid justifications (e.g., true associations shown in meta-analytical research) for including them (Spector & Brannick, 2011).

Regarding statistical power, we computed the pseudo- R^2 (McFadden, 1973) for each of the final models presented in Table 1 before the post hoc power analyses. To reach a statistical power $(1 - \beta) = .80$ and $.95$, respectively, we only needed 59 or 92 participants for the maternal hostility model; 64 or 100 participants for the maternal warmth model; 86 or 134 participants for the paternal hostility model; and 81 or 127 participants for the paternal warmth model. Our subsample sizes with complete data (see Table A1) and after missing data were addressed ($N = 454$) all exceeded these numbers.

Testing Hypotheses: Simple Slopes Test as a More Powerful Tool than Interaction Test

The hypothesized moderating effects were that among adolescent-parent dyads preferring a common language, the effects of parental warmth would be bolstered (H1) and the effects of parental hostility would be buffered (H2). Based on the results from Table 1 (or Tables A2 to A4), the consistently interaction effects of a common language existed in the predictions of desistance from maternal hostility, paternal hostility, and paternal warmth, respectively. Compared with the results in Table 1 and Tables A2 to A4, the models without any covariates (now shown) showed slightly different results in that the interaction effect of a common language on paternal warmth ($Bs = -0.20$ or -0.84 , $ps < .001$) was flipped to the opposite direction ($B = 0.37$, $p = .013$). Despite this difference, the results from simple slope tests⁷ (see Tables 2) consistently showed that the buffering effects of a common language only existed in the predictions from parental hostility but not from parental warmth. This discrepancy shows that the simple slopes tests is more statistical powerful than the conventional interaction test, as Robinson et al., 2013 explicated. Given the replication crisis in psychology (Shrout & Rodgers, 2018), we argue that a moderating effect has to pass the simple slopes tests to be considered one.

Based on our rationale, neither paternal warmth nor maternal warmth supported our first hypothesis. In Table 2, Panel B includes the simple slopes tests based on the results from the interaction tests in the Poisson regression models. Inconsistent with the significant interaction of paternal warmth in Table 1, prediction from paternal warmth to the relative change in youth delinquency (i.e., Row 3 in Panel B) was not different across father-youth dyads preferring the

⁷ The post hoc probing of interactions that Aiken and West (1991) proposed encompasses two research questions that one can investigate: Whether (a) for a specific value of the moderator, the slope of the simple regression line is statistically significant different from zero and (b) any pair of the slopes is statistically significant different from one another (p. 14). If no simple slope is different from zero, then there is no need to compare whether any pair of simple slopes are statistically significant different from one another (p. 19).

same language ($B = -0.82, SE = 0.20, p < .001$) and those preferring different languages ($B = -0.62, SE = 0.17, p < .001$). That is, the association between paternal warmth and relative change in delinquency was not larger among the language-matched dyads than the language-unmatched dyads ($p = .45$). In contrast, consistent with the statistically significant interaction effects for maternal and paternal hostility in Table 1, the prediction from maternal hostility to the relative change in delinquency (i.e., Row 1 in Panel B) was smaller among the dyads wherein the adolescent favored the mother's preferred language ($B = 0.22, SE = 0.39, p = .57$) than the dyads wherein the preferred languages were different ($B = 1.38, SE = 0.22, p < .001$), and the link from paternal hostility to relative change in delinquency (i.e., Row 2 in Panel B) was not statistically significant for the language-matched group ($B = -0.48, SE = 0.28, p = .08$) but statistically significant among youths who did not regularly speak in their father's preferred language ($B = 0.44, SE = 0.13, p = .001$).

Discussion

Although previous research has shown that positive parenting predicts youths' decrease in substance use into emerging adulthood only among parent-youth dyads who share the same preferred language but not among those who do not (Schofield et al., 2017), family processes may operate differently among high-risk families where unique adaptation processes in youths across adolescence into emerging adulthood are needed (Lam et al., 2007). The current study attempted to replicate similar findings among a sample of high-risk Latinx youths who convicted of a criminal act in adolescence. We hypothesized that when adolescents reported regularly using the same language that the parent typically spoke, the prediction from parental warmth to offspring delinquency would be augmented (H1), but our results did not support this hypothesis. We also hypothesized that when adolescents reported regularly using the same language that the

parent typically spoke, the prediction from parental hostility to offspring delinquency would be attenuated (H2). Our results supported this hypothesis for both mothers and fathers. Importantly, regardless of the number of covariates, when the prediction from parental hostility to relative change in youth delinquency was examined, common language among parent-offspring dyads appeared to be a protective factor for high-risk Latinx youths.

One interpretation of our finding is that a common language facilitates intersubjectivity or mutual understanding during communication (e.g., Gillespie & Cornish, 2010). This shared understanding helps youths interpret parental hostility as being motivated by genuine concern instead of parent-centered reasons. Without this, parents' attempts to enforce familial expectations (e.g., correcting wrongdoing) during adolescence could lead to power struggles and disengagement, which are of particular concern due to the nuances of adolescent disclosure to parents in many Latinx families (Gallegos-Castillo, 2006). Our finding echoes shared language erosion theory (Cox et al., 2021) in that a common language among Latinx parent-youth dyads helps their rapport, which in turn serves as a protective factor for these Latinx youths' desistance from delinquency. Also, it has implications for the immigrant paradox theory (Marks & García Coll, 2018) because lack of a common language across generations appears to allow for the unwanted outcomes among these high-risk Latinx youths.

An alternative interpretation that communication barriers are a longitudinal moderator of the relation between parental hostility and youth desistance involves Latinx cultural values. *Familismo* (i.e., familism), *respeto* (i.e., respect), and other cultural values not assessed in the current study often vary between Latinx parents and youths (Gonzales et al., 2019). Although these cultural values did not account for similar moderating effects of a common language reported by Schofield et al. (2016) when match of language proficiency was examined, they

could account for the significant moderating effects found here. Among these unassessed cultural values, traditional gender attitudes (i.e., machismo and marianismo) could account for these moderating effects because of the gendered nature of parent-youth relationships during adolescence among Latinx families (e.g., Chen et al., 2021). That is, same-sex parents tend to engage in more socialization of traditionally gender-appropriate behaviors than cross-sex parents such that Latinx mothers likely encourage stereotypically feminine behaviors in daughters, whereas Latinx fathers likely encourage stereotypically masculine behaviors in sons (Raffaelli & Ontai, 2004).

Similar gendered relationships have been stated in the literature. For example, Latinx mothers looked at daughters more than sons during a discussion task, which implies that Latinx mothers may defer to fathers when taking the lead in socializing boys (Schofield et al., 2008). Latinx mothers of girls discussed sexual norms and consequences of sex more and emphasized forms of birth control less than mothers of boys (Deutsch & Crockett, 2016). Also, a study following Latinx families across adolescence shows that initial parental traditional gender values predicted a decrease in parental monitoring of sons but not daughters, initial paternal familismo predicted a decrease in paternal warmth toward daughters but not sons, and initial maternal traditional gender values predicted a decrease in maternal hostility toward daughters but not sons (Chen et al., 2021). Although Latinx youth gender did not predict offspring desistance in the current study, a directly measured construct gender attitude might explain more than the demographic variable youth gender.

A second alternative interpretation of the current findings involves the parents' social backgrounds. Among the zero-order correlations, parental social position and generation status were associated with youth-parent language-match except for the association between maternal

generation status and adolescent-father language-match. However, in the regression models, parental social position and generation status did not predict youth desistance when parental affect and common language were considered. We interpret this as evidence that language-match captured something other than parental social background. Additionally, regarding the main effects, Latinx fathers appeared to reduce delinquency by expressing warmth probably due to the fact that fathers were normally expected to perform instrumental characteristics such as tasks and occupation orientations but not so much concerning expressing their warmth (Parke et al., 2019). Alternatively, our predominantly male sample may be more responsive to paternal warmth simply because they are the same gender (Hoeve et al., 2009). In contrast, Latinx mothers did not reduce youth delinquency by expressing warmth probably due to higher standards for maternal warmth in society wherein mothers' expressive characteristics such as nurturance, sympathy, concern with feelings toward offspring are overly emphasized (Parke et al., 2019). This may be especially true among Latinx families because of the stated traditional gender values. Also, this may be due to the small variability in youth ratings of maternal warmth that was rated relatively high and clustered tightly around that mean. That is, Latinx youth tendency to view mothers as uniformly warm would reduce the predictive effect of maternal warmth on youth desistance.

Limitations

Although this Latinx sample allowed us to study within-group differences, these findings should be tested in other samples who do not mostly identify as Mexican American. Replications among different Latinx heritage groups (e.g., Cuban American) are needed. Support for the moderating effect of a common language would be stronger had the current study included measures of language preference from two sources (i.e., the youth and parent) or the language measure been specific for language preference. Our measures came from a single informant and

may be influenced by shared variance. Although our self-reported data were validated by collateral reporters and official records, we could not totally rule out the residual bias from social desirability. The interpretation of our findings must be considered in the context of our reliance on proxies (i.e., youth-reported parent language preference and youth frequencies of using Spanish and English).

These nonexperimental data cannot support strong causal inference. A better measure of language-match should entail observational data (e.g., recorded videos) through which interactions involving language use between parent-offspring dyads could be rated to capture which language is used under what circumstances. Generalizability is limited because this sample are adjudicated Latinx youths (i.e., a high-risk sample) and predominantly male. Thus, our findings may be related to the disproportionate gender distribution. The higher proportion of language-match among our sample than the Latinx population might be site-relevant (Phoenix is Latinx-concentrated) or, in the opposite direction, out of social desirability (e.g., Latinxs might self-report a higher English use for themselves or their parents than reality). Although the sample size was adequate, the relatively high proportion of language-match might reduce the statistical power. Also, relative change is not an optimal way to model intraindividual change over time.

Contributions

Regardless of the stated limitations, fluid communication among Latinx parent-youth dyads through a common language are found to be a buffering effect on the prediction from parental hostility to an increase in youth delinquency (i.e., failure to desist). The current study supports that Latinx youth's regular use of their parent's preferred language facilitates their desistance by buffering the negative effects of parental hostility. This lends support to both shared language erosion and immigrant paradox theories.

Implications for Practitioners

Efforts to facilitate desistance for Latinx youths could incorporate parent-youth language barriers. For example, practitioners could inform Latinx parents and youths of the importance of using the same language by explaining why the youths want to use more English (e.g., in response to discrimination) than the parent (e.g., ensuring cultural values could be conveyed). The pseudo explained variances showed that our predictive models appeared to work better among father-youth than mother-youth dyads in terms of capturing youths' desistance from delinquency. Although we did not probe why in the current study, practitioners may want to involve fathers in interventions programs for delinquent youths.

Implications for Theories

Language preference or language-match may not necessarily be related to ethnic identity (Rumbaut, 2015) because Latinxs, especially among later generations, may not need to signal their ethnicities using Spanish (Pew Research Center, 2023), whereas among Asian Americans whose heritage languages may vary by their country of origin (e.g., China, Vietnam), such an association may be stronger (e.g., Phinney et al., 2001). Regardless of generation status, Latinx parents and youths face systemic oppression, so researchers have been investigating risk and protective factors for Latinx youths (e.g., White et al., 2019). Similarly, we content that language-match among Latinx parents and youths is an important yet overlooked protective factor. The buffering effects of a common language on the predictions from parental hostility in mothers and fathers to desistance held with the presence of eight covariates. This finding may partly explain why the immigrant paradox exist among Latinxs over generations and add insights to the current language erosion theory.

Implications for Researchers

The two methodological issues underscored are noteworthy. First, the conclusions would have been different had researchers only relied on the interaction test to claim moderating effects. That is, had we not probed the simple slopes, we might have reported statistically significant moderating effects of a common language for paternal warmth as well. Second, without any covariates, the direction of the interaction effect of a common language and paternal warmth on youth desistance could be misleading, whereas the other three parenting models appeared to be unaffected with or without covariates. Comparisons between models with different numbers of covariates have rarely been presented in peer-reviewed publications. Given that covariates might not affect the outcome variable(s) in the expected directions (Spector & Brannick, 2011), presenting results with and without covariates should be pursued for replicability in the future (Simmons et al., 2011). Generation status by nature confounds immigrants' language use, so we suggest researchers be more cautious when generation status is included as a covariate when language-match is the main research interest. We did not dive into this variable in addition to using proxies because that would have obscured the main hypotheses that we focused on. Had we looked at Spanish use instead of common language, the inclusion of the covariate generation status would have been inappropriate.

Conclusion

The U.S. language policies have focused on macro issues (e.g., language ideology) more than micro issues (e.g., communication among parent-youth dyads) partially due to the convention of focusing on public and institutional contexts (e.g., school or workplace), with less attention to the intimate sphere like the family (King et al., 2008). Our findings show that language-match among Latinx families appears to need more attention among high-risk Latinx

families. Also, language preference among Latinxs should be considered an acculturative behavior change, especially among later generations. In addition, research has shown that Asian immigrants do not present a similar immigrant paradox phenomenon (e.g., Gee et al, 2010), which should be investigated more in the future. Importantly, understudied theoretical (i.e., the immigrant paradox and shared language erosion theories) and methodological (i.e., presenting covariates starting from a full model, the interaction test vs. simple slopes test) issues are addressed. The immigrant paradox should be only used within the same ethnicity in the United States. Finally, the simple slopes test investigates different things than the interaction test and the former test is more statistical powerful than the latter test.

Compliance with Ethical Standards

Data

Details about the Research on Pathways to Desistance data collection procedures and instruments are publicly available at <https://www.icpsr.umich.edu/web/ICPSR/studies/29961>.

Ethics Approval

The current study was considered exempt by the xxx Institutional Review Board because it is a secondary analysis of an existing data set.

Conflict of Interest

We have no competing interests to declare.

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Table 1

Parental Affect Predicting Relative Change in Delinquent Behavior (with Covariates Showing Statistical Significance in Either Model When All Possible Covariates Were Included)

Predictor	Maternal hostility				Maternal warmth				Paternal hostility				Paternal warmth			
	β	<i>B</i>	<i>SE</i>	<i>p</i>	β	<i>B</i>	<i>SE</i>	<i>p</i>	β	<i>B</i>	<i>SE</i>	<i>p</i>	β	<i>B</i>	<i>SE</i>	<i>p</i>
Delinquent behavior at baseline	0.21	0.001	0.00	.048	0.14	0.001	0.001	.28	0.02	0.000	0.00	.41	0.17	0.001	0.00	<.001
Family structure	-	-	-	-	-	-	-	-	-	-	-	-	0.14	0.47	0.21	.023
Family size	-	-	-	-	-	-	-	-	-0.25	-0.31	0.07	<.001	-	-	-	-
Incarcerated parent	-	-	-	-	-	-	-	-	-	-	-	-	0.18	0.89	0.26	.001
Ethnic Identity	-	-	-	-	-	-	-	-	-	-	-	-	0.21	1.11	0.31	<.001
Adolescent and parent prefer to speak in the same language (L)	0.41	1.11	0.39	.004	0.83	0.63	0.30	.03	0.18	0.93	0.55	.09	0.13	0.63	0.20	.002
Parental affect (P)	1.57	1.38	0.22	<.001	0.02	0.03	0.41	.93	0.18	0.44	0.13	.001	-0.29	-0.62	0.17	<.001
L x P interaction	-0.99	-1.16	0.17	<.001	-0.23	-0.27	0.40	.51	-1.03	-1.02	0.26	<.001	-0.89	-0.20	0.03	<.001

Note. β = standardized regression coefficient, *B* = unstandardized regression coefficient, *SE* = standard error. We tested and presented the models with the key variables in the current study (i.e., parental affect, language-match, language x parental affect, and delinquent behavior in adolescence and emerging adulthood) as well as covariates that were previously associated with the outcome variable in each model, respectively. For the paternal hostility model, family size was included; for the paternal warmth model, family structure, incarcerated parent, and youth ethnic identity were included. Boldface = $p < .05$.

Table 2

Panel A

Simple Slopes from Models Predicting Change in Delinquency

Predictor	Matched		Not matched	
	<i>B</i>	SE	<i>B</i>	SE
Maternal hostility	0.31	0.44	1.08	0.23
Paternal hostility	-0.67	0.26	0.42	0.09
Paternal warmth	-0.92	0.67	-0.08	0.54

Note. All simple slopes were calculated after eight covariates were included, as shown in Table A2. Note that the simple slopes for parental warmth were not significantly different from zero. Therefore, the moderating effect of language-match on the association between paternal warmth and youth desistance identified in a Poisson regression model did not hold in the simple slope test. Boldface = $p < .05$.

Panel B

Simple Slopes from Models Predicting Change in Delinquency

Predictor	Matched		Not matched	
	<i>B</i>	SE	<i>B</i>	SE
Maternal hostility	0.22	0.39	1.38	0.22
Paternal hostility	-0.48	0.28	0.44	0.13
Paternal warmth	-0.82	0.20	-0.62	0.17

Note. All simple slopes were calculated after statistically significant covariates were included, as shown in Table 1. The simple slopes for parental warmth did not significantly vary ($p = .45$) across the two groups (i.e., language-match and mismatch). Therefore, the moderating effect of language-match on the association between paternal warmth and youth desistance identified in Poisson regression did not hold in the simple slope test. Boldface = $p < .05$.

Panel C

Simple Slopes from Models Predicting Change in Delinquency (without covariates)

Predictor	Matched		Not matched	
	<i>B</i>	SE	<i>B</i>	SE
Maternal hostility	0.22	0.39	1.38	0.22
Paternal hostility	-0.57	0.36	0.35	0.15
Paternal warmth	-0.50	0.24	-0.87	0.09

Note. All simple slopes were calculated from the models without any covariates (now shown). The simple slopes for parental warmth did not significantly vary ($p = .15$) across the two groups (i.e., language-match and mismatch). Therefore, the moderating effect of language-match on the association between paternal warmth and youth desistance identified in Poisson regression did not hold in the simple slope test. Boldface = $p < .05$.

Appendix

Table A1

Correlations Among Variables Used in Analyses

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Youth-mother language-match	-																
2. Youth-father language-match	.65	-															
3. Maternal hostility	.02	-.05	-														
4. Maternal warmth	.06	.07	-.39	-													
5. Paternal hostility	-.04	.02	.35	-.16	-												
6. Paternal warmth	.05	.11	-.25	.50	-.20	-											
7. Delinquent behavior in adolescence	-.03	-.01	.01	.04	.09	.03	-										
8. Delinquent behavior in emerging adulthood	.03	.06	.20	-.05	.01	-.03	.12	-									
9. Mother U.S.-born	.36	.10	-.01	-.03	.08	.00	.06	.02	-								
10. Father U.S.-born	.33	.23	.02	-.03	.14	-.13	.12	.10	.60	-							
11. Parental social position	-.23	-.16	-.05	.05	-.11	.10	-.11	-.01	-.31	-.32	-						
12. Family structure	-.04	-.04	.04	.01	.00	.13	-.07	-.07	-.16	-.14	.08	-					
13. Family size	-.07	-.08	-.08	-.01	-.07	.09	-.03	-.02	-.06	-.12	.15	.31	-				
14. Incarcerated parent	.05	.05	.15	-.03	.12	-.07	.03	.10	.17	.18	.00	-.10	-.12	-			
15. Youth gender	.09	.04	.06	-.15	-.03	-.05	-.01	-.04	.11	.09	-.14	-.08	-.05	.04	-		
16. Site	-.04	-.05	.00	-.00	.04	-.07	.01	.07	-.12	.04	.01	.10	.02	.00	-.01	-	
17. Ethnic Identity	.07	.06	-.03	.13	-.06	.12	.03	.04	-.18	-.17	.05	.05	.02	-.13	-.03	-.02	-
<i>M</i>	0.68	0.60	1.62	3.19	1.50	2.68	122.4	42.3	0.61	0.48	57.0	1.25	4.34	0.42	0.12	0.48	2.86
<i>SD</i>	0.47	0.49	0.44	0.69	0.49	0.91	283.9	162.3	0.49	0.50	12.0	0.70	2.02	0.49	0.33	0.50	0.46
<i>n</i>	322	245	444	444	303	303	452	388	450	418	452	453	454	454	454	454	454

Note. The numbers of cases were computed before missing data were addressed. Spearman's Rho was computed when both variables are dichotomous. Boldface = $p < .05$.

Table A2*Parental Affect Predicting Relative Change in Delinquent Behavior (with Covariates)*

Predictor	Maternal hostility			Maternal warmth			Paternal hostility			Paternal warmth		
	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>
Delinquent behavior at baseline	0.001	0.00	.17	0.001	0.00	.09	0.000	0.00	.73	0.001	0.001	.19
Generational status	-0.30	0.27	.28	-0.35	0.43	.42	0.65	0.45	.15	0.65	0.35	.06
Parental social position	0.00	0.02	.89	0.01	0.02	.62	0.03	0.02	.17	0.02	0.03	.43
Family structure	0.02	0.34	.96	0.03	0.35	.93	0.64	0.17	<.001	0.60	0.27	.024
Family size	-0.13	0.13	.32	-0.16	0.14	.26	-0.43	0.08	<.001	-0.33	0.25	.19
Incarcerated parent	0.63	0.40	.12	0.74	0.31	.015	0.55	0.45	.23	0.59	0.28	.037
Youth gender	-1.47	0.71	.039	-1.53	0.74	.040	0.46	0.82	.57	0.17	1.53	.91
Site	0.29	0.29	.32	0.49	0.27	.07	0.28	0.32	.38	0.52	0.35	.13
Ethnic Identity	-0.02	0.31	.95	0.31	0.37	.41	0.19	0.37	.60	0.98	0.44	.024
Adolescent and parent prefer to speak in the same language (L)	0.85	0.27	.002	0.80	0.30	.008	0.77	0.39	.044	0.16	0.40	.69
Parental affect (P)	1.08	0.24	<.001	-0.03	0.37	.93	0.42	0.09	<.001	-0.08	0.54	.89
L x P interaction	-0.78	0.21	<.001	-0.37	0.41	.37	-1.01	0.33	.002	-0.84	0.13	<.001

Note. *B* = unstandardized regression coefficient, *SE* = standard error. We tested and presented the models with the key variables in the current study (i.e., parental affect, language-match, language x parental affect, and delinquent behavior in adolescence and emerging adulthood) as well as eight covariates. Boldface = $p < .05$.

Table A3

Parental Affect Predicting Relative Change in Delinquent Behavior (with Covariates Showing Statistical Significance in the Previous Models When All Possible Covariates Were Included)

Predictor	Maternal hostility			Maternal warmth			Paternal hostility			Paternal warmth		
	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>
Delinquent behavior at baseline	0.001	0.00	.07	0.001	0.00	.12	0.000	0.00	.93	0.001	0.00	<.001
Family structure	-	-	-	-	-	-	0.52	0.37	.16	0.47	0.21	.023
Family size	-	-	-	-	-	-	-0.45	0.10	<.001	-	-	-
Incarcerated parent	-	-	-	0.61	0.29	.03	-	-	-	0.89	0.26	.001
Youth gender	-1.66	1.03	.11	-1.85	1.21	.13	-	-	-	-	-	-
Youth ethnic Identity	-	-	-	-	-	-	-	-	-	1.11	0.31	<.001
Adolescent and parent prefer to speak in the same language (L)	1.03	0.33	.002	0.51	0.33	.13	0.82	0.89	.36	0.63	0.20	.002
Parental affect (P)	1.39	0.23	<.001	-0.04	0.30	.90	0.46	0.30	.12	-0.62	0.17	<.001
L x P interaction	-1.11	0.16	<.001	-0.29	0.33	.39	-1.02	0.26	<.001	-0.20	0.03	<.001

Note. *b* = unstandardized regression coefficient, *SE* = standard error. We tested and presented the models with the key variables in the current study (i.e., parental affect, language-match, language x parental affect, and delinquent behavior in adolescence and emerging adulthood) as well as the covariates that were previously associated with the outcome variable in each model, respectively. For the maternal hostility model, youth gender was included; for the maternal warmth model, incarcerated parent and youth gender were included; for the paternal hostility model, family structure and family size were included; for the paternal warmth model, family structure, incarcerated parent, and youth ethnic identity were included. Boldface = $p < .05$.

Table A4

Parental Affect Predicting Relative Change in Delinquent Behavior (with Covariates Showing Statistical Significance in the Previous Model)

Predictor	Maternal hostility			Maternal warmth			Paternal hostility			Paternal warmth		
	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>
Delinquent behavior at baseline	0.001	0.00	.048	0.001	0.00	.11	0.000	0.00	.41	0.001	0.00	<.001
Family structure	-	-	-	-	-	-	-	-	-	0.47	0.21	.023
Family size	-	-	-	-	-	-	-0.31	0.07	<.001	-	-	-
Incarcerated parent	-	-	-	0.50	0.32	.12	-	-	-	0.89	0.26	.001
Ethnic Identity	-	-	-	-	-	-	-	-	-	1.11	0.31	<.001
Adolescent and parent prefer to speak in the same language (L)	1.11	0.39	.004	0.61	0.37	.10	0.93	0.55	.09	0.63	0.20	.002
Parental affect (P)	1.38	0.22	<.001	0.13	0.48	.78	0.44	0.13	.001	-0.62	0.17	<.001
L x P interaction	-1.16	0.17	<.001	-0.35	0.43	.41	-1.02	0.26	<.001	-0.20	0.03	<.001

Note. *B* = unstandardized regression coefficient, *SE* = standard error. We tested and presented the models with the key variables in the current study (i.e., parental affect, language-match, language x parental affect, and delinquent behavior in adolescence and emerging adulthood) as well as covariates that were previously associated with the outcome variable in each model, respectively. For the maternal warmth model, incarcerated parent was included; for the paternal hostility model, family size was included; for the paternal warmth model, family structure, incarcerated parent, and youth ethnic identity were included. Boldface = $p < .05$.