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# Prosociality in Young Latinx Children: Exploring the Role of Grandparents

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Theories of human development informed by cultural anthropology and evolutionary biology suggest that aspects of human prosociality are influenced by grandparents' interactions with grandchildren. Yet, the traditional focus within developmental psychology on European American nuclear families has yielded little empirical work on this topic. Recognizing the prevalence of live-in grandparents in Latinx communities, we conducted a preregistered study with young Latinx children ( $N = 250$ ,  $M_{\text{child age}} = 5.02$  years old). The study was intentionally designed to take place within the supermajority Latinx neighborhoods of Los Angeles County. These are low-income, urban neighborhoods with high rates of grandparent involvement with grandchildren. Because the study took place during the COVID-19 pandemic, we set up a mobile lab in an outdoor setting, which allowed us to use an experimental, prosocial behavioral-choice task that involved random assignment. Predicted probabilities from a logistic regression model showed that Latinx children with grandparents living at home were 1.56 times as likely to exhibit prosocial choice behavior as those who did not have grandparents living at home, and this effect was significant while controlling for other preregistered covariates (education, economic insecurity, gender, age, etc.). These findings of an association between the presence of Latinx grandparents and children's prosociality contribute to our understanding of Latinx psychology and child-rearing. The findings also have broader implications for theories of culture, socialization, and prosociality.

### **Public Significance Statement**

Grandparents can occupy a central place in the lives of their grandchildren, but the potential role of grandparents has been understudied in research on the development of prosociality in young children. Our findings suggest that Latinx grandparents play a role in fostering prosocial values and choices in their young grandchildren. These findings help broaden our understanding of the origins and development of human prosociality, while also providing new information for programs designed to empower grandparents of all backgrounds to help children flourish.

**Keywords:** Latinx children, grandparents, prosocial behavior, socialization, COVID-19

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*continued*

Prosociality refers to actions that accommodate or benefit others (Dovidio et al., 2012; Tomasello, 2019). Prosocial behaviors vary by culture (Blake et al., 2015; Keltner et al., 2014; Marshall et al., 2022), and pioneering theorists held that Latinx culture is especially prosocial (Díaz-Guerrero, 1977; Knight & Kagan, 1977). For example, Latinx individuals generally prefer to engage and work in settings that emphasize interpersonal harmony (Acevedo et al., 2020; Sanchez-Burks et al., 2000); they strongly express positive emotions (Ruby et al., 2012) and routinely seek to engage in positive, substantive conversations and interactions with new people in new settings (Ramírez-Esparza et al., 2009, 2019). The amity, graciousness, and effusive hospitality common in Latinx individuals (Carlo et al., 2022; Triandis et al., 1984) can even promote prosociality in non-Latinx individuals with whom they interact (Holloway et al., 2009). Yet, much remains unknown about how such Latinx prosociality may be transferred between generations—to Latinx youth, especially in the first 5 years of life.

The child's family is a context for the enculturation of values, and in the case of Latinx families, the enculturation of prosociality may occur at surprisingly early ages. A series of laboratory experiments with 19-month-old infants showed that Latinx infants were more prosocial than non-Latinx White infants—sharing more objects of high personal value with strangers (Barragan et al., 2020; Barragan & Meltzoff, 2021). Such patterns can also be seen in elementary school-aged children, with pairs of Latinx siblings engaging in more fluid verbal collaboration to achieve a goal than pairs of non-Latinx White siblings (Alcalá et al., 2018; Rogoff et al., 2017). By adolescence, Latinx children have begun to crystallize the prosocial values of Latinx culture to broadly show the robust patterns of prosociality that are characteristic of Latinx adults (Carlo & Conejo, 2019; Fuligni et al., 1999). Notwithstanding this growing interest in the origins and development of Latinx prosociality,

how aspects of Latinx sociocultural experiences may foster prosociality in early Latinx childhood is not well understood.

### Grandparents, Grandchildren, and Latinx Culture

Although there is much that is known about children's interactions with their parents in the domain of prosociality (e.g., Eisenberg et al., 2015), there is little empirical work testing the possibility that *grandparents* may play an important role in the development of early prosociality. A review of 206 studies of grandparents and grandchildren (Sadruddin et al., 2019) reported only two studies that examined the connection between grandparents and prosociality in young children. One of these studies examined archival questionnaire data from the early 1990s in Britain and found no effect of grandparents on prosocial behavior in young children (Fergusson et al., 2008). The other study also used archival questionnaire data, collected in 2006 with a more diverse sample of U.S. children, and also found no effect of grandparents on young children's prosociality (Pilkauskas, 2014). It is possible that these studies may have been limited by their self-report methodology and/or by their focus on the general, non-Latinx population. We hypothesized that a study using an experimental, prosocial choice test and focused on Latinx families might uncover a link between grandparents and children's prosociality.

If previous empirical work has not identified the role of grandparents in the development of grandchild prosociality, why would this be different in the case of Latinx families? Fitting in with theories of prosociality in Latinx families (Carlo & Conejo, 2019; Rogoff & Mejía-Arauz, 2022), theories in cultural anthropology and evolutionary biology have suggested that living conditions that include extended family members may enhance early sociocognitive, emotional, and physical development (Hawkes, 2020; Hawkes et al., 1997; Hrdy, 2009; Hrdy & Burkart, 2022).

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are available from the corresponding authors upon reasonable request.

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A study among Hadza hunter-gatherers found that involvement, especially of the grandmother, in child-rearing can boost child nutrition and promote survival (Hawkes et al., 1997). Such processes also seem to be at play in Latinx populations: Grandmothers and their experience can buffer against preterm births for their Latinx grandchildren (Jain et al., 2021). Similarly, despite the trend of obesity in Latinx children (Soltero et al., 2021), Latinx grandparents can provide the support that wards against this (Pulgarón et al., 2013). There is also literature suggesting that Latinx children with grandparents living at home may fare better academically and emotionally than those without grandparents at home (Pittman & Boswell, 2008; Zeiders et al., 2015). Although these are only correlational studies, their overall pattern is consistent with proposals about the importance of grandparenting (Gopnik, 2023; Hawkes & Coxworth, 2013; Hrdy, 2009; Hrdy & Burkart, 2022) and suggests that Latinx grandparents—perhaps based on their child-rearing experiences and cultural values—may support positive developmental outcomes in their grandchildren.

Latinx grandparents may be able to facilitate such positive outcomes because of their embeddedness in networks that support Latinx cultural values. For example, *simpatía* involves positivity and relational harmony, and it is a highly desired cultural value for Latinx individuals (Triandis et al., 1984). Additionally, Latinx families emphasize *familismo*, a cultural emphasis on supporting and nurturing all members of the family (Calzada et al., 2013; Sabogal et al., 1987). In studies of Latinx mothers and adolescents, *familismo* is related to adolescent prosociality, and investigators note the possibility that other family members who strongly value *familismo*, such as grandparents, may also promote the expression of adolescent prosociality (Calderón-Tena et al., 2011). Latinx grandparents are especially likely to value *familismo* (Goodman & Silverstein, 2002), and to a greater extent than in non-Latinx White families, there is a general expectation in Latinx families that grandparents will be involved in promoting this value through active involvement in child-rearing (Fuller-Thomson & Minkler, 2007). Additionally, *respeto* is a Latinx value involving conformity, deference, and respect toward others (Calzada & Eyberg, 2002; Livas-Dlott et al., 2010). As instantiated by Latinx parents (McCabe et al., 2013) it is related to child behavioral outcomes (Calzada et al., 2012;

Tamis-LeMonda et al., 2020). It is likely that Latinx grandparents emphasize prosocial values like *simpatía*, *familismo*, and *respeto* in their interactions with grandchildren.

Indeed, it has long been recognized that Latinx grandparents take it as one of their core responsibilities to promote moral behavior in their grandchildren (Raphael, 1989), and this may be particularly true of grandmothers. Grandmothers are held by anthropologists and evolutionary biologists to have been deeply involved in child-rearing over the last several hundred thousand years of human evolution (Hawkes, 2020). In pre-Columbian Mesoamerica, the Maya developed the *Popol Vuh*, a sacred text featuring children's interactions with their grandmother to a greater extent than their with grandfather or even their parents (Preuss, 1985). Ethnohistorical research suggests that grandmothers and their teachings were central to daily life in this period (Vail, 2019). Also, in contemporary Latin America, grandmothers (more so than grandfathers) play a major role in the lives of their grandchildren (Aubel, 2012). Within U.S.-based Latinx culture, women take an active role in the raising of prosocial children (i.e., *marianismo*; see Castillo et al., 2010; Piña-Watson et al., 2014). In light of this literature, the underlying motivation for our present study was the consideration that grandparents (and perhaps especially grandmothers) who live with their grandchildren are in a prime position to influence early prosocial behavior—a possibility that has not been tested experimentally either among the Latinx population or the general population.

### **Grandparents, Grandchildren, Latinx Los Angeles County, and COVID-19**

We conducted our study in Los Angeles County, which has the largest Latinx population of any county in the United States. We specifically focused on a contiguous region of the county reported by the 2020 American Community Survey (U.S. Census Bureau, 2020) as having over 90% Hispanic/Latino representation (hereinafter “region”). As reported by others (Estrada & Hondagneu-Sotelo, 2011; Guzmán et al., 2021), children in this region are often children of immigrants, grandchildren of immigrants, or themselves immigrants. Because of its status as a Latinx hub, the region—a large area southeast

of downtown Los Angeles—has been widely represented in Latinx-oriented social science research (Fregoso, 1990; Guerrero & Mendez-Luck, 2019; Irazábal & Farhat, 2008). Yet, there remains a notable gap in research addressing early Latinx psychological development in such contexts, which coincides with the more general underrepresentation of Latinx populations and issues in social–developmental psychology research (Calzada et al., 2019; Carlo et al., 2022; Causadias & Coll, 2022; Williams et al., 2023).

We began our research project with a pilot study of the hypothesized link between grandparents' and grandchildren's prosociality. Our intention was to see whether a field study could be rigorously conducted with children in public parks in the Los Angeles region. This pilot took place in 2019. We focused on 4- and 5-year-old children because: (a) at these ages, children are less experienced with the formal educational system (i.e., their family experience remains their primary socialization context, but see the Limitations section for discussion of the possible role of peers and schooling experience), and (b) children at these ages are considered in child development research to be old enough to actively engage in verbal interactions with experimenters (i.e., able and willing to answer test questions posed to them by friendly strangers).

In this 2019 pilot study, we found that approximately 50% of young Latinx children in the parks in the region had grandparents living at home, and about 75% of these children responded prosocially in our experimental prosocial task (described in detail below). Our plans for a formal study were delayed by the government shutdowns caused by the COVID-19 pandemic, but after the rollout of the initial vaccines, Los Angeles County reopened in the Summer 2021. This allowed us to conduct further pilot work using a COVID-19-updated protocol (e.g., wearing an N95 mask), as well as altering the experimental procedures and duration in ways that seemed feasible during the pandemic. Our twin goals were to maintain methodological rigor while aiming to be sensitive to the norms of interacting with strangers that had developed during the pandemic and were still prevalent at the time.

In this immediate, postvaccination time period, we found that caregivers were willing to participate in our pilot study but also that family structures seemed to have been altered. Specifically, we

observed that the percentage of children with grandparents living at home had been reduced to approximately 33%. The reduction of live-in grandparents presumably reflected the fact that the COVID-19 pandemic had struck the older population of the United States, triggering grandparent loss for a cohort of children (Verdery et al., 2020). Moreover, the effects of the pandemic on grandparent loss were especially pronounced for Latinx children: A national analysis found that, compared to non-Latinx White children, Latinx children have had almost double the risk of experiencing the death of their grandparent during COVID-19 (Hillis et al., 2021). Epidemiologists found that COVID-19 has been more than 3 times as deadly to the Latinx community as to non-Latinx Whites within Los Angeles County (Simon et al., 2021). Given these patterns, we realized that the pandemic might affect our planned study. Nonetheless, because we had established the feasibility of collecting the data, and because we had seen promising pilot data prior to and during the pandemic, we pressed forward with our study of Latinx families, in an outdoor community setting.

### The Present Study

Because we had successfully developed a fixed protocol for collecting data in public park settings, we decided to submit a preregistration (<https://aspredicted.org/9it89.pdf>). This preregistration established us as having devised a study with a Latinx sample to examine the association between live-in grandparents and the prosociality of very young grandchildren. Like others in society, we thought that the pandemic might recede following the rollout of two-dose vaccine regimen and that we would be able to go beyond our preregistered power analysis minimum sample size of  $N = 223$  to reach a goal of  $N = 500$  children. However, due to much slower than expected data collection during the first 6 months of data collection, September 20, 2021 to March 29, 2022 (a period that encompassed the unexpected rise of the Omicron variant), we stopped collecting data when we reached the exact halfway point of 250 participants who fit the study criteria and completed the protocol. Up until then, we had not scored or analyzed any data. By the time of the 250th child participant, the highly transmissible Omicron subvariants (BA.3, BA.4, and BA.5) had emerged and were widely reported as evading

vaccine protection. Under these conditions, we decided to end the study and analyze/write up the large and valuable data set of 250 young Latinx children and their families.

## Method

### Study Location and Procedural Overview

An English–Spanish bilingual male experimenter visited public parks in the preregistered region. Most testing occurred in the picnic table/playground areas of the parks, with some testing along the park walkways as well as in the adjoining park parking lots. Testing sessions occurred in the mid- to late afternoon, a time when the parks had many families with young children in a recreational-relaxed atmosphere (e.g., street vendors selling corn on a stick [*eloteros*], people practicing Mexican folk dance [*baile folklórico*]). On some days, some of the parks hosted vaccination drives for COVID-19 and for the flu.

In this general park setting and context, to invite participation from families, the experimenter, wearing a well-fitted N95 mask, approached adults who seemed to be watching after young children (e.g., sitting on a bench, holding a child-sized backpack, looking/talking toward a specific child). As is customary in this Hispanic/Latinx region, the experimenter greeted the caregiver with a mixture of English and Spanish (e.g., “Good afternoon, Buenas tardes.”) When caregivers responded in one of the two languages, the experimenter continued the conversation in the caregiver’s response language. He introduced himself as a researcher from the sponsoring university by gesturing to the university logo on the back of his clipboard. As he did this, he informed the caregiver that the present study was focused on families with 4- and 5-year-old children and asked if they would like to participate—that is, whether they presently had a child of the desired age range at the park who might want to play a “sticker game.” For caregivers who chose to move forward with the study, the experimenter further explained the study using university institutional review board-approved consent procedures and provided caregivers with a copy of the institutional review board-approved study documentation (Approval ID: STUDY00000832).

The experimenter then handed caregivers a clipboard showing a side of the questionnaire page with questions in the language they were speaking with the experimenter (i.e., English or Spanish; 64.80% Spanish). After the caregiver completed the questionnaire, the child was invited to participate in the language that was suggested by the caregiver. Following the test, the caregiver was debriefed about the research and received a \$10 gift card to a local, Latinx-owned and operated grocery store as compensation for their participation. Of the caregivers who chose to participate, 66.00% were mothers, 18.00% were fathers, 8.00% were grandmothers, 5.20% were aunts, 2.40% were grandfathers, and 0.40% were uncles.

### Participants

As specified in the preregistration, only children between 4.00 and 5.99 years old, and whose caregiver identified them as Hispanic/Latinx, were eligible for inclusion in the study. The mean age (based on caregiver report) of the test children was 5.02 years old,  $SD = 0.57$ ,  $N = 250$ , with 49.60% reported as female. Of these 250 participants, none had participated in the pilot work (we cross-referenced matches for birthdates/genders as well as names on our gift card registry). An additional 18 eligible children had begun the study but were excluded because of crying or extreme fussiness ( $n = 4$ ), equipment problems ( $n = 1$ ), interference from accompanying family members ( $n = 4$ ), experimenter error or problems with instruction ( $n = 9$ ). (For completeness, we also note that an additional 22 children were initially tested, but a later review of their paperwork indicated that the children were, in fact, ineligible for participation given our preregistered criteria, because of their age or not being Hispanic/Latinx.) Notably, our analytic sample size of  $N = 250$  exceeded our a priori power analysis that was based on our pilot data, which indicated that a minimum sample size of  $N = 223$  would afford 80% power for detecting medium-sized effects with an  $\alpha = .05$  (two-tailed test). Of the 250 Latinx children in the study, we found that 31.60% (79/250) had any grandparent living at home and 29.20% (73/250) specifically had grandmothers living at home (i.e., only six children had live-in grandfathers without a live-in grandmother).

## Apparatus

We constructed a mobile apparatus for our experimental test of child prosociality. We used two standard clipboards (31.75 cm × 22.86 cm), removing the clip from one, and adjoining the two together in order to increase the thickness of the clipboard. This allowed us to clamp a gooseneck device holder to the bottom of the clipboard to mount a camera (Apple iPod Touch 7th generation) to video record the prosociality task on the surface of the clipboard. Prior to testing each child, the experimenter secured a preprinted–printed page presenting the prosociality task (described below) to the clipboard using dabs of sticky putty on the underneath surface.

## Measures

### *Experimental Test of Child Prosociality*

We adopted the classic Fehr et al. (2008) test of prosociality in children. In the prosocial test, children were presented with the opportunity to select an option that benefits not only themselves but also another child (represented by a silhouette) versus an option that would benefit only themselves. Versions of this test have been adapted and used by many laboratories to test young children's prosociality (e.g., Barragan & Dweck, 2014; Brownell et al., 2009; House et al., 2012; Lu & Chang, 2016; Rabinowitch & Meltzoff, 2017). One cross-cultural study examined responses of children aged 3–14 years old in six different societies across the world and found that prosocial responding did not significantly increase over the age span we had selected to study (House et al., 2013). Gender is also reported to be a nonsignificant factor on this child prosocial test (e.g., Fehr et al., 2008; Rabinowitch & Meltzoff, 2017). Based on this prior work, it was unknown whether age or gender might be predictive of prosociality in a specifically Latinx child population. Taken altogether, we decided to use this “gold standard” test as our outcome measure examining prosociality in a previously undertested population (young Latinx children).

In the test, children had the option of choosing either one sticker for themselves and one sticker for the other child (referred to as the “1:1 task”), or one sticker for themselves and none for the other child (the “1:0 task”). The stickers were small smiley faces. The protocol was administered by

giving the test child a preprinted sheet of paper divided into two sides with a vertical line separating the 1:1 option and the 1:0 option (with left–right placement of the 1:1 and 1:0 options randomized across participants to check for a nuisance factor of a possible right-side bias). Children were asked to make a behavioral choice to indicate either the 1:1 or the 1:0 option. The dependent measure was the number of children using their hand to retrieve the sticker from one of the two sides (1:1 or 1:0), with the 1:1 choice hereinafter referred to as the “prosocial choice.” (Note that in this Fehr task, the child was always allowed to retrieve one sticker for themselves, and the experimental question was whether they did so from the 1:1 array or the 1:0 array.)

We chose the behavioral act of retrieving/removing the sticker as our dependent measure to differentiate it from simple pointing or touching, which may have indicated children's exploration/interest rather than their prosocial behavioral choice (and would have been difficult to code if pointing had occurred off camera, whereas the camera mounted on the clipboard pointed directly down at the stickers and removal of a sticker was scored with high reliability, see below). Additionally, we had initially considered but rejected an alternative potential procedure for children to mark their choice with a writing instrument because we believed that removing the sticker was the most fluid behavioral possibility in the busy public park setting.

A coder, who was uninformed of the hypotheses, scored children's behavioral choice by watching the 250 video-recorded park sessions in a random order. This main coder and a second coder rescored a random sample of 25% of the videos to evaluate inter- and intraobserver agreement. There were no disagreements: Cohen's  $\kappa = 1.00$  for children's choice behavior for both inter- and intrascorer agreement.

### *Family Demographics Questionnaire*

The caregiver respondent was asked the following questions to provide information about the focal child and their family: (a) the child's age; (b) the child's gender (“boy,” “girl,” or “other”); (c) age/gender of child's siblings (we thought that older siblings might act as caregivers); (d) whether or not the child's grandmother lived with the child; (e) whether or not the child's grandfather lived with the

child; (f) whether or not the child's aunt lived with the child; (g) whether or not the child's uncle lived with the child; (h) maternal education status, with response options listed as not a high school graduate/General Education Development credential, high school graduate/General Education Development credential, some college (including community college), graduation from the college (including community college), and "do not know"; (i) economic insecurity as indicated by family use of an Electronic Billing Transfer card (EBT), which is a governmentally issued card that instantiates the federal Supplemental Nutrition Assistance Program (SNAP; California Electronic Billing Transfer Project Office, 2022), with response options of "yes," "no," or "do not know"; and (j) where the child lived (city and/or ZIP code). As preregistered, we expected that the predicted grandparent effect on prosociality would obtain even while controlling for these other demographic variables.

The caregiver respondents answered the questions on a one-page questionnaire (in their chosen language, either Spanish or English). As part of the study design, we did not want to burden caregiver respondents because we realized that they would have limited attentional and temporal availability in the outdoor park setting. An example of this is that we noticed during pilot work that caregivers often looked up the questionnaire on the clipboard to check on their children, and so longer questionnaires seemed difficult to implement in the present study. Another design-related issue was that during this early phase of the pandemic, many people were still attempting to practice social distancing, and so we were mindful that caregivers might not appreciate interacting with a stranger for more than a short time; and, we also wanted to minimize the time the experimenter would interact with multiple strangers. For these reasons, we limited the time spent with participants, which constrained the information we were able to collect.

Relatedly, we also wanted to design questions for which most of the caregiver respondents would know the information. For example, it might be useful to ascertain the family's income-to-needs ratio, but all the relevant information (e.g., total household income) might not be known to the caregiver accompanying the child to the park. Thus, in the study, we relied on two short questions about maternal education and household EBT use, which taken together

provide information about the family's socioeconomic status in the absence of an official calculation of income-to-needs ratio. We suggest that these kinds of trade-offs are part and parcel to running a study in community parks rather than a controlled lab setting.

We, therefore, acknowledge that it would have been useful to collect additional information about the child and/or extended family (such as whether children were living in single- or two-parent families), but we selected the questions listed above (a–j) as the most comprehensive, relevant questions that we could fit into the brief, pandemic-era study, and onto a one-page user-friendly questionnaire, to test our core hypotheses. Additionally, we note that the material listed above is not a selected subset from a larger study; the measures listed above are what we preregistered for the study. The fact that we did not collect additional measures places some limits on the interpretation of our effects, which we acknowledge in the Limitations section.

### **Analytic Plan**

Our principal question concerned the predictors of children's prosocial choice behavior as measured by the 1:1 versus 1:0 task, which is a binary outcome variable. In accordance with our preregistration, we modeled the child's prosocial choice using logistic regression as a function of each of the two focal grandparent-related predictors (separately), which were (a) whether or not any grandparent lived with the child and (b) whether or not a grandmother lived with the child. (Additionally, our preregistration noted that we would explore whether or not grandparents/grandmother "helped to care for" the child. See online Supplemental Materials, Section 3.0, for these exploratory analyses.)

### **Preliminary Analyses**

Our initial analyses examined whether there was nonindependence in the data due to where the child lived (city or ZIP code) or experiment location (eight parks) using multilevel modeling; in all analyses, we found no evidence of an intraclass correlation in the prosocial choice outcome or the predictors (intraclass correlation coefficients = 0). As a result, we adopted unilevel (single level), rather than multilevel, logistic regression modeling for the data and created a



$$\begin{aligned} \text{Logit(Prosocial choice)} = & \beta_0 + \beta_1 \times \text{Time} + \beta_2 \times \text{Grandparent Variable} \\ & + \beta_3 \times \text{Time} \times \text{Grandparent.} \end{aligned} \quad (1)$$

binary park location covariate comparing the park location with the largest number of participants to other parks. Importantly, an additional source of dependence in the data was also evaluated: time. This is because data collection took place over a 6-month period during which new variants of the coronavirus (Omicron) surged to the highest ever case counts (see the Discussion section). When we tested the correlation between prosocial choice and time (calculated as the difference in child's study participation date and the date of the study start, converted to months), we found a negative correlation between these variables for children who had a grandparent living in the home ( $n = 79$ ,  $r = -0.25$ ,  $p = .026$ ), but not for children who did not have a grandparent living in the home ( $n = 171$ ,  $r = 0.02$ ,  $p = .784$ ). (The same pattern was observed for children with a grandmother living in the home compared to those who did not.) Consistent with our preregistration plan for dependencies in the data, we incorporated time and a time-by-grandparent interaction in our final analyses (see Final Analyses and Discussion sections for further information).

### Final Analyses

We specified two models for testing the relations between each focal grandparent predictor and the child's prosocial choice: one model with just the focal grandparent variables and one that also incorporated covariates (i.e., child and family characteristics as well as three experimental design-related factors). Descriptive statistics of the sample are shown in Table 1. For ease of interpretation of the logistic regression, all predictors were mean-centered (i.e., binary predictors were effect-coded and continuous predictors were standardized into  $z$ -scores). The exception was time: For each child, this predictor was coded in months since the study onset to ensure that the intercept could be interpreted as the study onset date and that the time effect could be interpreted as a change in the likelihood of

prosocial choice per month of the study. Model 1 was as follows:

(See above)

In Model 1, the log-odds of prosocial choice is a function of the sum of (a) the conditional mean of prosocial choice (the intercept, in logits) at the time the study began ( $\beta_0$ ), (b) the change in prosocial choice (in logits) per month since the study began ( $\beta_1$ ), (c) the difference in prosocial choice (in logits) at the start of the study between children with grandparents living with them and the sample average ( $\beta_2$ ), and (d) the difference in change over time in choice (in logits) between children with grandparents living with them and the sample average ( $\beta_3$ ).

Model 2 added to Model 1 by also incorporating the preregistered family, child, and experimental design covariates, as follows: (a) whether or not any aunt and uncles lived with the child, (b) whether or not the child had any older sisters or brothers (older siblings are potential caregivers), (c) maternal education status (1 = completed high school or beyond), (d) economic insecurity (1 = household EBT use), (e) child age, (f) child gender (1 = female), (g) caregiver respondent's language (1 = Spanish), (h) left/right position of the sticker on the choice task (1 = right side of the clipboard), (i) park location (1 = main park, testing location with the most respondents). Additional coding details are provided in the online Supplemental Materials, Sections 1.0 and 2.0. In addition, as preregistered, we examined whether the model covariates were potential moderators of the grandparent effect. The analysis revealed no significant Grandparent  $\times$  Covariate interactions (see online Supplemental Materials, Section 3.0). All analyses were conducted in *R* (including the *lme4* package for preliminary multilevel modeling analyses) and *SPSS* (Version 19), using two-tailed tests.

### Results

Tables 2 and 3, respectively, provide the results for our models predicting children's prosocial

**Table 1**  
*Descriptives and Zero-Order Correlations for Variables Used in Analyses*

Variable	M (SD)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Outcome																	
1. Prosocial choice	0.56 (0.50)	—															
Focal predictors																	
2. Time (months)	3.17 (1.89)	-.06	—														
3. Gpar lives with	0.32 (0.47)	.04	.06	—													
4. Time × Gpar	—	-.01	-.13	.85	—												
5. Gma lives with	0.29 (0.46)	.03	.05	.95	.80	—											
6. Time × Gma	—	-.02	-.18	.79	.93	.84	—										
Family covariates																	
7. Any aunt/uncle	0.23 (0.42)	-.02	-.05	.39	.34	.41	.36	—									
8. Any older sisters	0.45 (0.50)	-.06	-.06	-.19	-.17	-.16	-.13	-.15	—								
9. Any older brothers	0.45 (0.50)	.08	.03	-.16	-.19	-.17	-.22	-.13	.04	—							
10. Child female	0.50 (0.50)	.00	-.06	-.04	-.03	-.06	-.05	-.12	.03	.04	—						
11. Child age	5.02 (0.57)	.06	.08	-.05	-.08	-.04	-.08	-.02	-.09	.08	-.01	—					
12. Maternal education	0.64 (0.48)	.02	-.02	.09	.09	.08	.09	-.01	-.10	-.09	.14	.05	—				
13. Economic insecurity	0.38 (0.49)	.01	-.07	-.02	-.05	-.05	-.06	.07	.15	.11	-.07	-.07	-.13	—			
Design covariates																	
14. Park location	0.54 (0.50)	.04	.24	-.05	-.12	-.05	-.13	-.06	-.01	.02	.01	.17	.06	-.06	—		
15. Sticker placement	0.52 (0.50)	.05	.06	-.05	-.08	-.03	-.06	.01	.09	.00	.11	-.01	.02	-.02	-.02	—	
16. Caregiver resp lang	0.65 (0.48)	.01	.12	-.15	-.10	-.14	-.10	-.08	.17	.01	-.17	-.07	-.26	-.04	-.19	.06	—

*Note.*  $N = 250$  children. Means and standard deviations for categorical variables were based on dummy-coded variables and actual units for continuous variables. Correlations (Pearson's  $r$ ) were based on effect-coded predictors except time (coded in months since the start of the study) and child age (in years,  $z$ -scored). Gpar = grandparent; Gma = grandmother; resp lang = respondent's language. Correlations in italics indicate significance at the .05 level.

**Table 2**  
*Logistic Regression Results for Prosocial Choice (1:1) Using “Any Grandparent Lives With Child” as Focal Predictor*

Parameter	Model 1 (Nagelkerke $R^2 = .03$ )				Model 2 (Nagelkerke $R^2 = .06$ )			
	Est (SE)	z	p	OR [95% CI]	Est (SE)	z	p	OR [95% CI]
Intercept (M)	0.73 (0.29)	2.50	.012*	2.08 [1.17, 3.70]	0.78 (0.31)	2.52	.012*	2.17 [1.19, 3.97]
Focal predictors								
Time (months)	-0.13 (0.08)	-1.68	.093	0.88 [0.76, 1.02]	-0.18 (0.08)	-2.17	.030*	0.84 [0.71, 0.98]
Gpar lives with	0.60 (0.29)	2.06	.040*	1.83 [1.03, 3.25]	0.69 (0.31)	2.23	.026*	1.99 [1.09, 3.66]
Time × Gpar	-0.15 (0.08)	-1.98	.048*	0.86 [0.74, 1.00]	-0.15 (0.08)	-1.88	.060	0.86 [0.74, 1.01]
Family covariates								
Any aunt/uncle					-0.15 (0.17)	-0.87	.387	0.86 [0.61, 1.21]
Any older sisters					-0.17 (0.14)	-1.22	.223	0.84 [0.64, 1.11]
Any older brothers					0.16 (0.14)	1.18	.238	1.17 [0.90, 1.53]
Child female					-0.02 (0.14)	-0.16	.873	0.98 [0.75, 1.28]
Child age (z)					0.11 (0.13)	0.81	.415	1.12 [0.86, 1.45]
Maternal education					0.07 (0.14)	0.49	.623	1.07 [0.81, 1.42]
Economic insecurity					0.02 (0.14)	0.17	.867	1.02 [0.78, 1.35]
Design covariates								
Park location					0.13 (0.14)	0.91	.363	1.14 [0.86, 1.50]
Sticker placement					0.14 (0.13)	1.02	.309	1.15 [0.88, 1.49]
Caregiver resp lang					0.17 (0.15)	1.07	.286	1.18 [0.87, 1.60]

*Note.*  $N = 250$  children. All predictors were effect-coded, except time (coded in months since the start of the study) and child age (in years, z-scored). Logistic regression with maximum likelihood was used to analyze data. Gpar = grandparent; resp lang = respondent’s language; SE = standard error; OR = odds ratio; CI = confidence interval.  
 \*  $p < .05$ .

**Table 3**  
*Logistic Regression Results for Prosocial Choice (1:1) Using “Grandmother Lives With Child” as Focal Predictor*

Parameter	Model 1 (Nagelkerke $R^2 = .03$ )				Model 2 (Nagelkerke $R^2 = .06$ )			
	Est (SE)	z	p	OR [95% CI]	Est (SE)	z	p	OR [95% CI]
Intercept (M)	0.76 (0.30)	2.52	.012*	2.14 [1.19, 3.88]	0.80 (0.31)	2.53	.011*	2.22 [1.20, 4.12]
Focal predictors								
Time (months)	-0.14 (0.08)	-1.77	.077	[0.75, 1.01]	-0.18 (0.08)	-2.18	.029*	0.83 [0.71, 0.98]
Gma lives with	0.61 (0.30)	2.01	.044*	[1.02, 3.32]	0.67 (0.32)	2.11	.035*	1.95 [1.05, 3.63]
Time × Gma	-0.16 (0.08)	-2.02	.043*	[0.73, 1.00]	-0.15 (0.08)	-1.86	.063	0.86 [0.74, 1.01]
Family covariates								
Any aunt/uncle					-0.14 (0.18)	-0.79	.431	0.87 [0.62, 1.23]
Any older sisters					-0.17 (0.14)	-1.24	.214	0.84 [0.64, 1.10]
Any older brothers					0.15 (0.14)	1.10	.272	1.16 [0.89, 1.52]
Child female					-0.02 (0.14)	-0.13	.893	0.98 [0.75, 1.28]
Child age (z)					0.11 (0.13)	0.80	.426	1.11 [0.85, 1.45]
Maternal education					0.07 (0.14)	0.50	.620	1.07 [0.81, 1.42]
Economic insecurity					0.04 (0.14)	0.25	.800	1.04 [0.79, 1.37]
Design covariates								
Park location					0.13 (0.14)	0.88	.377	1.13 [0.86, 1.50]
Sticker placement					0.13 (0.13)	0.99	.321	1.14 [0.88, 1.48]
Caregiver resp lang					0.16 (0.15)	1.03	.305	1.17 [0.87, 1.59]

*Note.*  $N = 250$  children. All predictors were effect-coded, except time (coded in months since the start of the study) and child age (in years,  $z$ -scored). Logistic regression with maximum likelihood was used to analyze data. Gma = grandmother; resp lang = respondent’s language; SE = standard error; OR = odds ratio; CI = confidence interval.  
 \*  $p < .05$ .

choice using (a) whether or not *any grandparent* lives with the child (grandmother and/or grandfather) and (b) whether or not a *grandmother* lives with the child. As can readily be seen, both variables exhibited the same significant, expected patterns. (We are presenting both models because both were preregistered.)

Examining the tables more closely, we see that for those who participated at the beginning of the study period, children who lived with a grandparent (or a grandmother) were predicted to select the prosocial choice significantly more than children who did not live with a grandparent, and this was true after controlling for covariates in Model 2. Examining the results of Model 2 in each of the tables, we see that there is a predicted difference of 0.69 logits in the likelihood of prosocial choice for children living with any grandparent compared to the sample average at study onset ( $OR = 1.99$ , see Table 2) and a predicted difference of 0.67 logits for children living with a grandmother compared to sample average at study onset ( $OR = 1.95$ ). In other words, at the start of the study, the odds of a prosocial choice for any child with a grandparent living in the home were almost twice as likely as the odds of a prosocial choice for any child in the sample (on average), holding all else constant. Another way to meaningfully interpret these findings is to convert logit values into predicted probabilities (i.e., model-based probabilities): At the start of the study, children who lived with any grandparent had an 81% predicted probability of prosocial choice, compared to the sample average (68% predicted probability) and those without a grandparent living in the home (52%). There were similar predicted probabilities for a grandmother living with them (81%, vs. 69% sample average, and 53% without a grandmother living with them).

Time was also predictive of prosocial choice, but only significantly so in Model 2, after controlling for covariates: For each month of the study after it began, the likelihood of the prosocial choice across both groups of children (those living with and not living with grandparents) was predicted to decrease by 0.18 logits, all else held constant. Converting the logit values to predicted probabilities for the grandparent model, we find that the predicted probability of prosocial choice across all children in the sample was 42% by the end of the study, compared with 68% at the beginning of the study (with similar predicted

probabilities of 42% by the end and 69% at beginning for the grandmother model). Of note, none of the other variables significantly predicted the outcome. That is, child age or gender, older siblings, aunts/uncles, parent education, economic insecurity, caregiver respondent's language, and so forth did not predict children's prosociality.

## Discussion

The findings support the idea that Latinx grandparents play a role in the socialization of prosociality in their grandchildren. Specifically, Latinx children's decision to select a 1:1 option (which would benefit not only themselves but also another child) versus a 1:0 option (which benefited only themselves) was predicted by whether or not they have grandparents (or a grandmother) living with them in their household. This grandparent/grandmother effect remained significant even when controlling for the set of preregistered covariates used in this study (e.g., the presence of aunts/uncles in the household, child's age, child's gender, maternal education, economic insecurity). These findings, which emerged from a large ( $N = 250$ ) sample of Latinx children, will require replication and extension, but even at this initial stage have intriguing implications for theories of developmental, social, and cultural psychology.

Prior to the present experimental study, anthropological and evolutionary theory had suggested that grandparents influence child development (Hawkes, 2020; Hrdy & Burkart, 2022), but empirical analyses of archival caregiver reports found no effect on early prosociality (Sadruddin et al., 2019). Yet, cognizant of the value that Latinx culture places on grandparenting (Goodman & Silverstein, 2002; Mendoza et al., 2018; Raphael, 1989) and of the emphasis on prosociality in the Latinx value system (Carlo & Conejo, 2019; Carlo et al., 2022; Ramírez-Esparza et al., 2012, 2019), we conducted a study in low-income, urban neighborhoods that were almost entirely Latinx and found the hypothesized association between grandparents and early childhood prosociality.

The current results invite further research to investigate *how* the cultural values of Latinx grandparents and the grandparent–grandchild relationship may promote the intergenerational transfer of Latinx prosociality. We have several suggestions based on the results from this study

and also informed from caregivers' informal dialogues in the park and the suggestions from reviewers.

One possibility is that grandparents may be verbally encouraging of behavior that is *acomodido* (behavior that is proactively helpful even prior to and without it being requested, Rogoff et al., 2017). They may also verbalize or behaviorally model *simpatía* (Ramírez-Esparza et al., 2009, 2012; Rodríguez-Arauz et al., 2019), *respeto* (Calzada et al., 2010; Tamis-LeMonda et al., 2020), and/or *familismo* (Cahill et al., 2021; Calzada et al., 2013). This interrelated web of Latinx values may be communicated (intentionally or implicitly) during family mealtimes, while walking in the street with the child, while interacting with adults in the presence of the child, or through other everyday activities; and they may be communicated either verbally or nonverbally.

This communication of cultural values by Latinx grandparents, when combined with the powerful “observational social learning” and imitative abilities of young children (Barragan & Meltzoff, 2021; Meltzoff & Marshall, 2018; Skinner et al., 2020), may foster a tendency in Latinx children to attend to, remember, and reenact the prosocial attitudes and behaviors modeled by grandparents. Through this process of social learning from observing grandparents, children may calibrate their own behavior to be like their grandparents. Indeed, this process may be particularly strong in Latinx culture because grandparents and other ancestors are viewed as “connected” and directly contributing to the current family; and research has shown that young children pay special attention to and act like others who are thought to be “like-me” (Meltzoff, 2007, 2013; Meltzoff & Moore, 1995).

In light of the current findings and our interpretations of them, it would be highly desirable to examine the grandparent–grandchild prosociality link in other groups beyond the Latinx community. For example, in African American families, grandmothers provide guidance and support to their families (Graham et al., 1995; McLoyd, 1990), often being deeply involved in the development of grandchildren (Lee, 2020). Similarly, within Native American communities, many grandparents strive to transmit culture to grandchildren in their care (Mutchler et al., 2007). Among Asian Americans, collectivism values are strong (Kitayama et al., 2022), and families often

promote grandparents' involvement in child-rearing (Chen & Lewis, 2015). Yet, it is possible that Asian grandparents, and other groups of grandparents, may foster grandchild social development in different ways than the Latinx grandparents in the present study. Values like the collectivism seen in Asia may be different from the *familismo* values documented in Latinx populations. That is to say, the impact of grandparents on children's behavior may be embedded within a network of intertwined cultural values, norms, and ideals. These issues would benefit from empirical studies with diverse cultural groups selected by theory, both in the United States and within and across other countries (Fuligni et al., 1999; Rogoff et al., 2017).

Shifting to a more clinical perspective, the findings can potentially inform efforts to enhance the lives of Latinx youth. Although it is established that family relations are consequential in promoting Latinx mental health and resilience in the face of stressors such as discrimination (Cahill et al., 2021; Ramos et al., 2022), the role of grandparents in supporting parents and grandchildren may be underemphasized and/or underutilized in clinical science. For example, it is possible that just as well-designed Latinx parent–child therapy can improve outcomes for children (Blizzard et al., 2018; Ramos et al., 2018), this may also be the case with the inclusion of grandparents. Moreover, although we did not find that children whose caregivers responded in Spanish were significantly more prosocial than those children whose caregivers responded in English (Table 2), the patterns were in that direction. Latinx grandparents speaking Spanish to their U.S.-based grandchildren may confer multiple (related) benefits beyond prosociality per se, including bilingualism (Ramírez-Esparza et al., 2020), social identity–heritage preservation, psychosocial security, and other positive outcomes.

It is interesting that the patterns in the study were obtained during the very challenging coronavirus pandemic. Like others, we had expected some level of a societal “return to normal” more quickly than it occurred, but our data collection period overlapped with some of the highest COVID-19 case counts in Los Angeles County (e.g., a peak case count of 60,028 on January 4, 2022, Los Angeles County Department of Public Health, 2023—about midway through our data collection). That is to say, in addition to the

disproportionate psychosocial burdens encountered by our participant population at the onset of the pandemic (Simon et al., 2021), the data collection period encompassed a time of widespread sickness and worsening health among the elderly in the local community under study.

We believe that the hardship imposed by the pandemic on the specific population may have echoes in the dependencies we found in our findings. Specifically, we observed a significant effect of time and a significant interaction between time and grandparent (and grandmother) in predicting child prosociality. The interactions indicated that, as the study went into and after the Omicron crest, children with grandparents living at home began showing decreasing levels of prosociality. This decrease over time was not observed among children without grandparents living at home. We think that this pattern is interpretable in connection with findings that households with older adults, such as grandparents, were especially afflicted by the pandemic. We speculate that, as time progressed, the children with grandparents may have had repeatedly witnessed their grandparents' pandemic-induced afflictions. This would potentially be emotionally difficult, because the children would have been deprived of their normal grandparent–grandchild relationship. Indeed, during the course of the pandemic, intimate prosocial sharing with a grandparent might have become discouraged because of health concerns. By contrast, children in our study without grandparents living at home would not have experienced these same disruptions.

Research has demonstrated that the pandemic has deeply affected family and societal dynamics (Barragan et al., 2021; Gelfand, 2021; Mistry et al., 2022; Sachs et al., 2022), including very forcefully in Latinx families and their children (Vargas & Sanchez, 2020; Villatoro et al., 2022). It is important for future research to examine how Latinx families might adapt to, cope with, and overcome the pandemic and other challenges while maintaining a larger behavioral ecology (Bronfenbrenner, 1979) that promotes Latinx community values for the developing child.

### Limitations and Future Directions

Although the study has a number of strengths (experimental video-recorded task in a field setting with a large number of young Latinx children), we

also acknowledge five limitations and call for more research to clarify issues arising from the study.

First, we acknowledge that our design does not allow us to make causal inferences about the role of grandparents in early Latinx prosociality. Future work could address this by using matched case–control designs to examine how the natural introduction or removal of a live-in grandparent may influence children's prosociality. There may also be designed interventions (Cohen & Garcia, 2014; Ramos et al., 2018) that could work to experimentally enhance the grandparent–grandchild relationship. With such interventions, we could begin to examine the (potential) causal effect of grandparents on grandchildren's prosocial behavior. To be clear, the current findings show an associative, rather than causal, link between the presence of live-in grandparents and higher child prosociality; this said, the linkage was significant even after accounting for a large, yet delimited, set of covariates.

Second, the design of our study did not allow us to differentiate whether the findings are specific to grandparents or a function of the overall number of people living in the home. On average, families with live-in grandparents have additional members, and it is possible that higher child prosociality is due to living with more people. Increased exposure to grandparents, peers, siblings, cousins, and others could nurture child prosociality. Such a process may occur because contact with additional people presents the child with opportunities to develop affiliations with a diversity of persons (Graham et al., 2014; Skinner & Meltzoff, 2019). Such experiences may prepare a child to engage prosocially with new people, or even with “all humanity” in general. This is an intriguing possibility, and future research should be designed to address this.

Third, we note that several other aspects of Latinx culture may also influence the grandparent–grandchild relationship. For example, Los Angeles County has a rich diversity of Latinx nationalities (e.g., Mexican, Guatemalan, Cuban, Peruvian), and it is known that the expression of prosocial values and behaviors like *familismo* vary by nationality (Estrada-Martínez et al., 2011). Moreover, immigration history, length of time in the United States, and/or acculturation are other factors of potential importance (Bridges et al., 2021; Knight & Carlo, 2012). Because COVID-19 concerns restricted the time we allotted for the caregiver questionnaire, we were unable

to examine how such detailed factors might modulate the effects we observed.

Fourth, we did not collect child temperament or family structure measures that may predict prosociality (Laible et al., 2014). Personal temperamental characteristics of children as well as more fleeting mood variations would be useful to assess in future research. Similarly, we did not collect measures about whether children were being raised primarily in single- or two-parent households, which may impact the early expression of prosociality.

Fifth, peers can impact children's prosociality (Tavassoli et al., 2023), and there is a known role of cousin relationships in Latinx cultures (Comeau, 2012). Peer group encounters provide opportunities to learn to cooperate with others. By 4–6 years of age, children are highly prosocial toward peers in classrooms and other settings (e.g., Hrdy & Burkart, 2022). We did not collect information about children's experience with school or daycare. Future studies should address how peer experiences both in and outside of school (preschool, daycare) may compare to grandparenting in predicting children's early prosociality.

In light of these limitations, we emphasize that this research is only an initial step in exploring the origin, scope, and development of prosociality in young Latinx children. Future research should incorporate temperament, family structure, and peer relations, by using a wide range of child, family, and neighborhood control variables. This was not possible in the present study designed to test children in park settings following the reopening of the community after the COVID-19 shutdowns. Nonetheless, we suggest that both the topic of early Latinx prosociality—and our method of testing it using an experimental field study—suggest productive research that would be of value to theory and practice. Grandparents (and other extended family members) are likely socialization agents who merit enhanced study in developmental, social, cultural, and clinical psychology.

## Conclusion

Early prosociality can be facilitated by social input in the child's environment. One important source of such social input may be the presence of grandparents in the child's life. We tested this question in a population of Latinx children and their grandparents because we were

influenced by theories at the intersection of anthropology, evolutionary biology, developmental, and cultural psychology, which suggested that grandparents may deeply influence children's development. We posit that prosocial behavior and values are critical domains in which this occurs.

It was by intentionally designing a study that included urban, low-income, multigenerational, Latinx households and testing young children within a community setting that we found the current empirical patterns. The results suggest that these families have significant “hidden strengths.” Indeed, the families in our study population have faced a history of stigmatization for many reasons, including the multigenerational living arrangement itself. As such, the patterns we report underscore the value of diversity and inclusion in developmental research (Brown et al., 2019; Covarrubias, 2021; Gutiérrez et al., 2020; Jacoby-Senghor et al., 2016; Stephens et al., 2012; Tamis-LeMonda et al., 2020). Including diverse populations is crucial for helping psychologists achieve the goal of constructing more comprehensive and generalizable theories of the intergenerational transfer of practices, values, norms, and personality (Dweck, 2017; Lee et al., 2020; Markus & Kitayama, 1998; McLoyd, et al., 2019). From a broader societal perspective, it is important to address and support the positive role that grandparents can have on the development of all children (Gopnik, 2023).

The present study suggests that in multigenerational contexts, and capitalizing on the lived experiences of grandparents, Latinx children may become motivated to act with *simpatía* and extend *familismo* even to those outside of their family. Gaining a deeper understanding of the cultural–developmental niche of Latinx children and their grandparents may yield foundational insights about the roots of human prosociality more generally.

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## Resumen

Las teorías del desarrollo humano basadas en la antropología cultural y la biología evolutiva sugieren que algunos aspectos de la prosocialidad humana se ven influidos por las interacciones de los abuelos con los nietos. Sin embargo, el enfoque tradicional de la psicología del desarrollo sobre las familias nucleares euroestadounidenses ha dado lugar a pocos trabajos



empíricos sobre este tema. Reconociendo la prevalencia de los abuelos que viven con sus nietos en las comunidades latinx, realizamos un estudio prerregistrado con niños latinx pequeños ( $N = 250$ ,  $M_{\text{edad del menor}} = 5.02$ ). El estudio se diseñó deliberadamente para que se llevara a cabo en los barrios de amplia mayoría latinx del condado de Los Ángeles. Se trata de barrios urbanos de bajos ingresos con altos índices de participación de los abuelos con los nietos. Dado que el estudio se llevó a cabo durante la pandemia de COVID-19, instalamos un laboratorio móvil en un entorno al aire libre, lo que nos permitió utilizar una tarea experimental de elección de conducta prosocial que implicaba una asignación aleatoria. Las probabilidades predichas a partir de un modelo de regresión logística mostraron que los niños latinx con abuelos que viven en casa tenían 1.56 veces más probabilidad de mostrar un comportamiento de elección prosocial que los que no tenían abuelos viviendo en casa, y este efecto era significativo mientras se controlaban otras covariables prerregistradas (educación, inseguridad económica, género, edad, etc.). Estos hallazgos de una asociación entre la presencia de abuelos latinx y la prosocialidad de los niños contribuyen a nuestra comprensión de la psicología y la crianza de los niños latinx. Los hallazgos también tienen implicaciones más amplias para las teorías de la cultura, la socialización y la prosocialidad.

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