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Socio-Emotional Skills, Behavior Problems, and Spanish Competence Predict the Acquisition of English Among English Language Learners in Poverty

Adam Winsler, Yoon Kyong Kim, and Erin R. Richard
George Mason University

This article analyzes the role that individual differences in children's cognitive, Spanish competence, and socio-emotional and behavioral skills play in predicting the concurrent and longitudinal acquisition of English among a large sample of ethnically diverse, low-income, Hispanic preschool children. Participants assessed at age 4 for language, cognitive, socio-emotional, and behavioral skills were followed through kindergarten. Multivariate analyses demonstrated that Spanish-speaking preschoolers with greater initiative, self-control, and attachment and fewer behavior problems at age 4 were more successful in obtaining English proficiency by the end of kindergarten compared to those initially weaker in these skills, even after controlling for cognitive/language skills and demographic variables. Also, greater facility in Spanish at age 4 predicted the attainment of English proficiency. Social and behavioral skills and proficiency in Spanish are valuable resources for low-income English language learners during their transition to school.

Keywords: English language learner (ELL), dual language learner, Latino/Hispanic, social skills, English acquisition

The number of English language learners (ELLs) in the United States has been increasing progressively in recent years. ELL enrollment in schools more than doubled between 1997 and 2008 (National Clearinghouse for English Language Acquisition, 2010). Hispanic children, who speak Spanish as their first language (L1), make up the largest proportion of ELL students in today's schools (U.S. Census Bureau, 2010). Given that (a) Hispanics are the largest and fastest growing minority group in the United States; (b) disproportionately high numbers of Hispanic children live in poverty (Chau, Thampi, & Wight, 2010); and (c) Hispanic children, as a group, struggle with relatively poor educational achievement, Garcia and Jensen (2009) argued that young Hispanic children constitute an urgent demographic imperative requiring considerable research and policy attention.

One of the key questions has to do with the conditions under which, and the speed with which, young Hispanic children acquire English. Depending on the pattern and timing of exposure to and support for both English and Spanish in the early years, there are many possible language outcomes for such children—some become fully bilingual fairly early on in childhood, learning English and maintaining Spanish in the process; some remain predominantly Spanish speakers with only limited English proficiency; and some become fully competent in English at the expense of Spanish. The current article examines child-level predictors of progress toward proficiency in English during pre-K and kindergarten among Spanish-speaking children in poverty. ELL children who become fully proficient in English, and who do so earlier in their educational career, do better later in school than those who continue to struggle with English proficiency (Halle, Hair, Wandner, McNamara, & Chien, 2012). Of course, English proficiency is only one of the many protective factors associated with success among Hispanic children. Competence in Spanish (L1) and the extent to which Spanish is supported by early schooling are also associated with academic outcomes (Han, 2012). In addition, children's L1 skills are helpful in acquiring a second language (L2; Ordóñez, Carlo, Snow, & McLaughlin, 2002).

Interest in bilingualism and second language acquisition has increased dramatically over the years. Moving well beyond the early methodologically flawed and politically motivated research on supposed developmental "perils" of bilingualism among immigrant children (Baker, 2006), researchers today, using well-designed studies that include appropriate controls for demographic differences between bilingual and monolingual groups, show that there are clear advantages associated with being fluent in two languages (Bialystok, 2001; Collier, 1995; Hamers & Blanc, 2000). Bilingual children, due to their knowledge of two languages and their experience switching between and manipulating two different symbolic systems, show advantages compared to demo-

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Adam Winsler, Yoon Kyong Kim, and Erin R. Richard, Department of Psychology, George Mason University.

Yoon Kyong Kim is currently at Best Solution for Competency Issues (BSC), Seoul, South Korea. Erin R. Richard is currently at Southside Special Services of Marion County, Indianapolis, Indiana.

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Correspondence concerning this article should be addressed to Adam Winsler, Department of Psychology 3F5, George Mason University, Fairfax, VA 22030. E-mail: awinsler@gmu.edu

graphically similar monolingual children in numerous domains of cognitive functioning, especially those related to inhibitory/cognitive control and metalinguistic awareness (see Barac, Bialystok, Castro, & Sanchez, 2014, for a review).

Although it is clear that being fully bilingual is an advantage, and that early English proficiency is helpful, the processes and predictors that help ELLs learn English and become bilingual, especially among young children in poverty, are not at all clear. Much of the research on the cognitive advantages of bilingualism has been conducted on relatively advantaged, older, children who are learning L2 on top of an L1 that happens to be dominant and valued in the community. Young ELL students in the United States, however, are likely to be members of ethnic and linguistic minorities, to live in poverty, and to have parents with limited education, and thus they experience a number of risk factors known to impede L1 development (Garcia & Jensen, 2009; Hart & Risley, 1995) that might constrain successful L2 acquisition as well.

Researchers have only recently begun to investigate simultaneous and sequential bilingual language acquisition among young ELLs. As is predicted by usage-based theories of language acquisition (Tomasello, 2003), the quality and the quantity of children's bilingual language input/exposure at home (and in school) and how much the children themselves actually speak each language are major determinants of children's growth over time in both L1 and L2 (Bohman, Bedore, Peña, Mendez-Perez, & Gillam, 2010; Duursma et al., 2007; Hammer, Davison, Lawrence, & Miccio, 2009; Hammer et al., 2012). A few studies (Bohman et al., 2010; Hammer et al., 2012) have started to show that some family factors (parental education, poverty status, immigrant generation) are related to the speed of L2 development among young bilinguals. However, the existing research literature having to do with child factors or individual difference factors important for L2 acquisition comes mostly from the second language acquisition (SLA) and foreign language teaching tradition, in which correlates of successful L2 acquisition have been examined among more advantaged, older children and adults learning a second language, a literature to which we now turn.

Correlates/Predictors of L2 Acquisition

Gender differences have often been found among older learners of second languages (Andreou, Vlachos, & Andreou, 2005), with female students generally having an advantage over male students in L2 facility assessed by achievement tests or assessments of oral, semantic, syntactic, or phonological fluency. Potential reasons for the female advantage include more conscious L2 learning strategies, meta-cognition, planning, and evaluation (Oxford, 1993); enhanced listening skills (Larsen-Freeman & Long, 1991); or less neurological specialization for language (Kimura, 1987) seen among females compared to males. An interesting possibility explored for the first time in the present study is that gender differences in early English language acquisition for ELLs could be due to enhanced socio-emotional and behavioral skills typically found in girls (Bosacki & Moore, 2004).

Anxiety, extroversion, and willingness to communicate in L2 have also been linked with L2 acquisition, with those lower in anxiety, more extroverted, and more willing to take risks showing more progress in their L2 (Horwitz, Horwitz, & Cope, 1986; Segalowitz, 1997). Indeed, child temperament is related to L1 development as well. Infants who are highly interactive and social with their mother at 9 months have higher language skills measured 6 months later compared to their peers (Fish & Pinkerman, 2003). Infants rated by their parents as smiling often, having higher activity levels, and greater sustained attention show greater receptive language skills than do other infants (Morales et al., 2000). Parent–child attachment may also play a role in L2 acquisition as it does for L1. Preschoolers who are securely attached to their parents are more responsive and verbally expressive than those who are less securely attached (Thompson, 2000; van IJzendoorn, Dijkstra, & Bus, 1995), and securely attached youngsters show stronger L1 vocabulary gains compared to those with insecure attachment (Meins, 1997). Social skills, therefore, likely play a role in L2 learning, since those more outgoing and willing to communicate in L2 receive more second language input and experience (MacIntyre, Clément, Dörnyei, & Noels, 1998). However, it is important to note that this has only been explored among older students typically learning L2 in the context of taking a course. The present study examines the role of social and behavior skills in the acquisition of English among preschoolers in poverty acquiring English in natural school settings.

First Language Competence

For children who learn a home language first and then get exposed to a second language later, say at school entry (sequential bilinguals), the child's skill and fluency in L1 can be an important factor in successful L2 acquisition (Bhatia & Ritchie, 1999). L2 learners often use aspects of their L1 knowledge (i.e., vocabulary, phonetics) to learn L2 (Ordóñez et al., 2002), and first and second language acquisition are guided by similar principles (Dressler, Carlo, Snow, August, & White, 2011). Speed of L2 acquisition is related to learners' skill in L1 since the two languages share and build upon a common base of language skills that transfer (Collier, 1995; Cummins, 1984). Since novice L2 learners typically translate L2 input into their L1 for comprehension, children with rich vocabularies and more language skill in their L1 are able to access and pull from their L1 faster for the service of learning L2 (Ordóñez et al., 2002; Verhoeven, 1994). Additional evidence of links between L1 and L2 skills comes from the fact that although individuals with specific language impairment can become bilingual, they show the same kinds of difficulties when acquiring L2 as they did with L1 (Kohnert & Medina, 2009; Peña & Bedore, 2009). Finally, cross-linguistic transfer from L1 to L2 can sometimes be negative depending on the nature of the two languages involved and the quality of the bilingual language input in the home (Gildersleeve-Neumann, Peña, Davis, & Kester, 2009; Paradis & Navarro, 2003).

The Present Study

This study examines, with a prospective, longitudinal design, a variety of family demographic and child-level correlates of the attainment of English proficiency among a large sample of Spanish-speaking ELL children in poverty, with an emphasis on the extent to which children's early socio-emotional, behavior, and cognitive skills and L1 competence predict concurrent and

later English skills. It is clear from the literature that children who are already bilingual show a variety of cognitive advantages especially in the areas of inhibitory/executive control (Bialystok, 2009). However, the social skills of bilingual children have rarely been examined (Hakuta & Garcia, 1989; Han, 2010a, 2010b), and the focus has been on cognitive advantages even though the construct of inhibitory control clearly relates to social and behavioral functioning as well (Gagne & Saudino, 2010). The present study tests the novel proposition that it may be that ELL children who are high to begin with in social skills, attachment with parent, behavioral control, and cognitive ability are those who are more likely to become bilingual over time, suggesting bidirectional relations between bilingualism and social and cognitive development. That is, bilingualism leads to positive social and cognitive outcomes for children, but social and cognitive skills can also contribute to the development of bilingualism. Indeed, Peal and Lambert (1962), pioneers in the field of L2 acquisition and bilingualism, articulated how difficult it would be to tease apart such bidirectional relationships by saying that it was difficult to ascertain whether the benefits associated with L2 acquisition occurred because "the more intelligent child became bilingual or whether bilingualism aided his intellectual development" (p. 20). The present study sheds some important light on these issues.

Socio-emotional skills are critical elements for the school readiness of all children (Raver, 2002); however, they are especially critical for children from impoverished backgrounds (Coolahan, Fantuzzo, Mendez, & McDermott, 2000; Raver, 2002). Upon school entry, young children from immigrant families have been found to lag behind native-born peers in the areas of cognitive and language skills but to have particular strengths in the areas of social skills and behavior (Crosnoe, 2007; De Feyter & Winsler, 2009). Solid socio-emotional skills promote competent interactions with classmates, teachers, and other adults, potentially contributing positively to the attainment of English language proficiency as well. Although the attainment of full bilingual proficiency is clearly the desired goal for ELL students, not all language-minority children attain this goal, especially those struggling with poverty. Thus, it is of great consequence to study factors associated with successful L2 acquisition during early childhood among low-income ELL children.

The present study examined how individual differences in family demographics, cognitive/language and socio-emotional skills, and L1 competence predict young ELL children's ability to achieve proficiency in English in the cultural context of Miami, Florida. The Miami setting is ideal for studying L2 acquisition (English) since Miami has such a large population of foreign-born/immigrant residents (United Nations Development Programme, 2004). As a result, Miami-Dade County, Florida, enjoys much sociolinguistic support for both Spanish and English, making it an important context for examining issues of L2 learning among young children.

Research Questions and Hypotheses

1. To what extent are concurrent socio-emotional skills, parent-reported child attachment, and child/family demographic variables related to L2 (English) proficiency at age 4 for predominantly Spanish-speaking ELL students? We expected females; those with greater reported attachment with adults; and those with stronger social, behavior, and cognitive skills to evidence stronger language ability in English at age 4.

2. To what extent do age-4 socio-emotional skills, attachment, L1 (Spanish) language competence, and demographic variables predict L2 (English) proficiency a year later in kindergarten for ELL students? We expected Spanish language skill and all of the above-mentioned variables to positively predict English proficiency a year later in kindergarten.

3. Do demographic variables and cognitive, behavioral, and socio-emotional skills at age 4 distinguish Spanish-speaking preschoolers who go on to acquire strong English proficiency a year later in kindergarten from those children who remain predominantly Spanish speaking? We expected that those who became emergent bilinguals by kindergarten would have originally stronger social skills, behavior, and cognitive skills than those who remained predominantly Spanish speaking.

4. Controlling for initial cognitive skills, gender, and demographic factors, do early socio-emotional skills at age 4 still distinguish between those who become emergent bilinguals in kindergarten and those who don't? We expected social skills to contribute unique variance to children's L2 proficiency above and beyond cognitive skills.

Method

Participants

Participants were a subset of children from one cohort (2003–2004) of the Miami School Readiness Project (Winsler et al., 2008), a large-scale, applied, university–community collaborative program evaluation project in which low-income children receiving subsidies to attend community-based childcare programs were assessed for school readiness at age 4 and followed into elementary school. For the purposes of this article, participants were limited to low-income (150% of the federal poverty line) "Latino/Hispanic" children (parent report of child on registration forms) who attended center-based childcare with the assistance of childcare subsidies and who had child assessment data (in either English or Spanish) during their 4-year-old preschool year (N = 2,059). As described in more detail in Winsler et al. (2008), all participants who received childcare subsidies for low-income families in the county were initially invited to participate in the county's school readiness assessment/intervention and longitudinal follow-up program, which involved free school readiness assessment reports to families. About 3% of families asked did not consent, and another 22% consented but then were not available for the child assessment at age 4. To reduce variance in out-of-home language exposure at age 4, we excluded 324 families who used their childcare subsidies to attend family child care or informal/relative care arrangements. The 496 centers attended by the children were naturally occurring childcare programs in the community that included for-profit, non-profit, and faith-based childcare (non–Head Start) centers and preschool programs that accepted childcare subsidies. Global center quality data (Early Childhood Environment Rating Scale–Revised [ECERS-R]; Harms, Clifford, & Cryer, 1998) was available from a roughly representative subset of 78 of these programs, with an average ECERS score of 4.08 (out of a 7-point scale with 3–5 indicating

average/mediocre quality and 5+ indicating high quality; Tran & Winsler, 2011). Anecdotal data from the project suggests that center-based childcare teachers in this community are typically females with a high-school education, with the majority being Spanish–English bilinguals (with an approximate 50/50 ratio of English and Spanish spoken by the teacher in the classroom).

At the age-4 assessment, children were 54 months of age on average (range = 48–60), and 51% were male. Family income was low (M = $16,100, SD = $7,600), with 89% of the sample qualifying for free/reduced lunch in kindergarten. Of the 2,059 participants at age 4, 75% (N = 1,544) arrived to kindergarten in the county's public schools and, with the assistance of the school district, were successfully linked to kindergarten student records. It is important to note that the N = 2,059 figure is the total number of children included in at least one of the analyses reported below. Due to the nature of the research questions involved, different subgroups of children from this larger pool needed to be selected. For Question 1, children had to be assessed in English at age 4, so this is a much smaller number (n = 997), and for Question 2, children had to be assessed in Spanish at age 4, so the n = 1,062 is a different subgroup of children. Similarly, for Questions 3 and 4, which involved longitudinal groupings of children over time, certain combinations of language outcome scores in kindergarten and child language of assessment groupings at age 4 were required, so participants included in those analyses represent even smaller subgroups of the overall sample.

Procedures/Measures

Assessments at age 4 were selected by the county's multiagency early childhood assessment task force. For the direct child assessment, bilingual (Spanish–English) assessors from the community—typically with MA degrees in educational, school, developmental psychology or social work—were trained on the instrument over a 2-day period in workshops conducted by the instrument authors/publisher and the local university. Children were assessed for cognitive, language, and social skills in the beginning of their pre-kindergarten year (September/October). After entering kindergarten the following year, school record data were obtained on the children, including their ELL status and level of English proficiency.

Cognitive and language skills. The Learning Accomplishment Profile-Diagnostic (LAPD; Nehring, Nehring, Bruni, & Randolph, 1992) was completed individually by children in a separate room of the child's center. Assessors arrived early in the day at a center and escorted children individually into another room for the approximately hour-long assessment. As is commonly done in previous research, bilingual assessors chose the best language (English or Spanish) to use for the assessment using both teacher report of the child's strongest language and their own impression of the child's stronger language after talking with the child in both languages and establishing rapport. Resources were not available to complete the lengthy assessment in both languages, and doing so would have placed an undue assessment burden on the child. Teacher reports of bilingual children's language skills are generally accurate, even for the more difficult task of rating overall proficiency in both languages (Bedore, Peña, Joyner, & Macken, 2011). The task of teachers here was easier—just reporting which language was the main/stronger one with which the child communicates most of the time. Also helping the validity of these judgments here is the fact that in this Miami context, most of the teachers were Spanish–English bilinguals themselves, so not only did they have a better understanding of children's L1 than is often the case with teacher reports but also, due to strong support for Spanish in this community, they likely had a weaker desire for children to hide their Spanish proficiency. Almost half of the children (48%) were assessed in Spanish on the LAPD. The LAPD has been shown to have good internal consistency reliability within the original norming sample (alphas of .76–.92) and good content validity and construct validity (Nehring et al., 1992). Internal consistency reliability for the LAPD within this Miami sample was .93 and .95 for the cognitive and language subscales, respectively, used for this project (Winsler et al., 2008), and reliability for the Spanish version is reported to be .93–.97 (Hardin, Peisner-Feinberg, & Weeks, 2005).

Social skills and behavior concerns. Children's socio-emotional strengths and behavior concerns were measured via teacher and parent/guardian report using the Devereux Early Childhood Assessment (DECA; LeBuffe & Naglieri, 1999). Adults reported on the frequency of children's behavior on items regarding initiative, self-control, attachment/closeness with adults, and behavioral concerns on a 5-point scale to indicate how often, within the past 4 weeks, the child exhibited behaviors described by the items (0 = *Never*, 1 = *Rarely*, 2 = *Occasionally*, 3 = *Frequently*, and 4 = *Very Frequently*). The Initiative scale measures the child's ability to use independent thought and action to meet his/her needs. The Self-Control scale measures the child's ability to experience emotion and communicate both verbally and behaviorally in a socially appropriate way. The Attachment scale measures mutual, strong, and long-lasting relations between a child and adults in general, rather than a specific attachment bond between parent and child. The Initiative, Self-Control, and Attachment/Closeness with Adults scales combine to make a Total Protective Factors (TPF) scale, with higher scores indicating greater socio-emotional strengths. The free-standing Behavior Concerns scale describes child behaviors of concern to parents and teachers, and higher scores indicate poorer child behavior. Of primary interest were teacher ratings for total socio-emotional protective factors and behavior concerns, both to avoid single-source bias and to provide an alternative to parent ratings, since previous work on attachment and child language development has largely focused on parent–child attachment (Fish & Pinkerman, 2003); for analyses focusing on attachment, the parent-reported attachment scale was used.

Parents and teachers had the option of completing the DECA in either English or Spanish. Parents received the DECA upon picking up the child from the center and were asked to return the completed form. Forty-five percent of the parents (50% of teachers) completed the Spanish form. Internal consistency reliability within this Miami sample was .77 for parent report of attachment, .82 for teacher report of attachment, and .90 for teacher reports of both self-control and initiative. For teacher-reported total protective factors, alpha was .94; and for behavior concerns, it was .81. Further, the reliability of the DECA within this Miami population has been shown to be consistent across raters and language of form (Crane, Mincic, & Winsler, 2011).

ELL status. English language learner status was determined on the basis of parent-reported home language upon entry to

kindergarten. About 44% (N = 945) had a home language of Spanish and thus were considered ELLs. For some analyses, whether the child was assessed in English or Spanish at age 4 on the LAPD was also used.

English proficiency in kindergarten. Upon entrance to kindergarten, children in the district received the Miami-Dade County Oral Language Proficiency Scale–Revised (M-DCOLPS-R; Abella, Urrita, & Schneiderman, 2005) assessment when parents reported "yes" on their school registration to any of the following three items: "Is a language other than English used in the home?" "Does the student have a first language other than English?" and "Does the student most frequently speak a language other than English?" M-DCOLPS-R is a Florida-approved English oral proficiency test given by a trained English as a second or other language (ESOL) teacher at school (Abella et al., 2005). This 25-item test is a grade-normed English oral proficiency test that places children into five ordinal levels according to their raw scores, with Level 1 for beginners (raw score of 4 or less) and Level 5 (raw score of 20 or more) for those deemed fully proficient in English. The test involves progressively more difficult items that ask the child to point to pictures and name items, then complete sentences, then state what is going on in pictures, then respond to questions about pictures, and finally, ask story comprehension questions, with the child not moving on to the next level of questions if s/he doesn't reach a minimum number of correct answers. The test is reported to be a reliable and valid measure of oral English language proficiency for both the placement and classification for the ESOL program (Abella, 1997). ESOL scores represent L2 skills in English development by five oral proficiency levels that relate to the amount of ESOL assistance and instruction that the child receives: Level 1 = "beginner," Level 2 = "low intermediate," Level 3 = "high intermediate," Level 4 = "advanced," and Level 5 = "proficient." When a student attains Level 5, the child is considered a former English language learner and is no longer tested on English proficiency or considered an ELL.

Demographic variables. Child/family background information was collected from school agency or public school records. Children's gender, family marital status (coded as married vs. other), parent birth country (United States vs. not), family size, and years of maternal education were noted. Poverty status was defined as qualifying for free/reduced school lunch in kindergarten, although by the sampling definition discussed above, all of the children qualified for childcare subsidies at age 4 and thus were all relatively low-income. Several of these family indicators were available for only a smaller subset of children.

Language proficiency groups. For Questions 3 and 4, the children were categorized into two groups according to their L2 acquisition trajectories over time from preschool to kindergarten. The focus was on differences between two Spanish-speaking groups of children: those who eventually became functionally "proficient" in English (defined by reaching ESOL Level 4 or 5) by the end of kindergarten and those who still qualified at the beginner or intermediate level (ESOL Levels 1–3) in oral English language skills in kindergarten. Students were categorized as a member of the *predominantly Spanish-speaking group* (n = 219) if Spanish was their strongest language at age 4 (indicated by the LAPD being given in Spanish) and then, a year later in kindergarten, the children still tested at only the beginner or intermediate level in English according to the school district's ESOL standards. Children were considered a member of the *emergent bilingual group* (n = 304) if Spanish was their strongest language at age 4 (LAPD being given in Spanish) and then, a year later in kindergarten, the children tested at the advanced or independent level in English according to the district's ESOL assessment. Although the focus is on the above two groups of Spanish-speaking children, a third, monolingual English-speaking group (but still Latino/Hispanic) was included as a comparison. Children were classified as being in the *monolingual English group* (n = 237; all Latino/Hispanic) if they were assessed on the LAPD in English at age 4, the parent reported English as the home language upon school entry, and they were never considered ELL or tested for English proficiency in kindergarten.

Results

Correlates of ELL Children's English Skills at Age 4

To examine the first research question, concerning correlates of ELL children's English skill at age 4, a relevant subgroup of children was selected that had a measure of English performance while in preschool. Thus, children whose parent-reported L1 at kindergarten registration was Spanish (indicating ELL status) and who had English language skills advanced enough to be assessed on the LAPD in English at age 4 were selected (N = 997; 51% male, M age = 55.44 months, SD = 3.56). The second column of Table 1 shows Pearson correlations between the continuous family background variables and children 's (English) language score on the LAPD, as well as point-biserial correlations between LAPD English scores and the dichotomous predictor variables. LAPD English scores at age 4 were higher for girls and for those who did

Table 1
Bivariate Correlates of English Proficiency at Age 4 and in Kindergarten (K)

Variable	Age 4 English LAPD score		Kindergarten ESOL level	
	N	r	N	r
Female	997	.11*	1,062	.03
Free/reduced lunch (K)	997	−.14*	944	−.02
Parent U.S. birth	375	.06	631	−.05
Parent married	373	.03	606	.01
Family size	375	.07	611	−.01
Parent education	375	.10	610	.09*
Teacher DECA TPF	904	.30**	896	.11*
Teacher DECA BC	904	−.19*	896	−.10**
Parent DECA Attachment	847	.08*	801	.08*
L1 (Spanish) competence at 4			1,062	.24**

Note. Correlations are Pearson for continuous variables and point-biserial for dichotomous variables. For the first two columns, the sample is restricted to ELLs assessed in English on the LAPD at age 4. For the second two columns, the sample is restricted to a different group of ELLs assessed in Spanish on the LAPD at age 4. LAPD = Learning Accomplishment Profile–Diagnostic; ESOL = English as a second or other language; DECA = Devereux Early Childhood Assessment; TPF = total protective factors; BC = behavior concerns; L1 = first language; ELLs = English language learners.
* $p < .05$. ** $p < .01$.

not receive free/reduced lunch in kindergarten. Other demographic variables were not significantly correlated with ELL children's English language skill at age 4. Children who were rated higher on social skills and lower on behavioral concerns by their preschool teachers had greater English LAPD language skills compared to those who were rated lower on social skills and higher on behavioral concerns. Also, children perceived by their parents to have stronger attachment with adults at age 4 were more competent in L2 (English) skills at age 4 compared to those less attached/close with adults, although this was a small effect.

To examine how child and family variables together predict ELL children's English skills at age 4, a hierarchical multiple regression model was run with poverty status and gender entered first (other demographic variables were not included because of small sample sizes), teacher-rated DECA scores for TPF and behavior entered second, and then parent-rated attachment was entered in the third and final group of variables, with English LAPD language scores as the dependent variable. Poverty and child gender explained 5% of the variance in ELL's English LAPD language score ($R^2 = .05$), $F(2, 835) = 21.70$, $p < .001$. Gender was a significant predictor ($\beta = .09$), $t(835) = 2.80$, $p < .01$ (see Table 2), such that girls scored higher than boys on LAPD language (English). Poverty was also significant ($\beta = -.20$), $t(835) = -5.99$, $p < .001$), showing that ELL children who would go on to receive free/reduced lunch in kindergarten had poorer English language skills at age 4. In Step 2, when teacher-reported child social skills and behavior concerns were added in the model, 7.7% more variance in LAPD English was explained. ELL children with higher TPF scores had stronger English language skills ($\beta = .27$), $t(833) = 6.88$, $p < .001$. It is important to note that gender was no longer significant after social skills were added to the model, suggesting that the gender difference in English skills may be due to gender differences in social competence. Parent-rated child attachment, when added in the next step, did not explain unique variance in the LAPD English language skills of ELL children.

Correlates of ELL Children's English Proficiency in Kindergarten

For the analyses examining Question 2, which included children's L1 competence as a predictor, the relevant group of children selected were those children whose L1 was Spanish as reported by parents upon entry into kindergarten and who were assessed on the LAPD at age 4 in Spanish ($N = 1{,}062$; 51% male, M age = 55.18 months, SD 3.66). Similar to analyses reported above, correlation and regression analyses as well as group difference analyses were conducted, but this time with children's English oral proficiency (ESOL Level 1–5) in kindergarten as the dependent measure. The right-most column of Table 1 shows Pearson and point-biserial correlations (for continuous and dichotomous predictors, respectively) between child and family background variables and English language skills during children's kindergarten year as well as preschool socio-emotional skills and L1 (Spanish) competence. Among all the child and family background variables, only parent education was significantly correlated with English oral proficiency in kindergarten. Children who had parents with more years of education had slightly stronger English proficiency by kindergarten. Other demographic variables were not associated with children's oral English proficiency as assessed in kindergarten. ELL children who were rated higher on TPF and lower on behavior concerns by their teacher at age 4 were stronger in their oral English skills in kindergarten. Also, children with stronger attachment to adults as reported by the parent were more competent in L2 (English) skills in kindergarten compared to those who were not as close with adults. In addition, children who were more competent in L1 (Spanish) at age 4 had higher English proficiency in kindergarten compared to those less competent in L1 in preschool.

Considering that most of the child and family factors were not significantly correlated individually with kindergarten English proficiency and there were fewer children who had data on all of the background variables, those variables were excluded from the multiple regression models that follow for simplicity. (Models run

Table 2
Multiple Regression Predicting ELL Children's English Skills at Age 4

Variable	LAPD (English) language total score				
	F change	R^2 change	β	*SE*	*t*
Model A	21.69	.05			
Free/reduced lunch			−.20**	.61	−6.00
Female			.09**	.56	2.80
Model B	36.51	.08			
Free/reduced lunch			−.18**	.59	−5.45
Female			.05	.55	1.36
Total protective factors			.27**	.02	6.88
Behavioral concerns			−.02	.07	−0.53
Model C	0.07	.00			
Free/reduced lunch			−.18**	.60	−5.30
Female			.05	.55	1.37
Total protective factors			.27**	.02	6.81
Behavioral concerns			−.02	.07	−0.53
Attachment			.01	.08	0.27

Note. ELL = English language learner; LAPD = Learning Accomplishment Profile–Diagnostic.
** $p < .01$.

adding the nonsignificant predictors of gender and poverty status yielded the same results as those reported below.) Multiple regression was conducted with children's Spanish LAPD score in the first step, teacher-rated social skills and behavior concerns added second, and parent-rated attachment with adults added third, with ESOL level in kindergarten as the dependent variable. L1 LAPD language skill in Spanish in the first step alone explained 6.7% of the variance in ESOL level in kindergarten (English; $R^2 = .066$), $F(1, 763) = 54.60$, $p < .001$ (see Table 3). Children who were more competent in Spanish had higher L2 English oral proficiency in kindergarten compared to those not as advanced in Spanish language skills a year earlier. Child social and behavioral skills did not add significantly above and beyond Spanish competence. Parent-rated attachment was also not significant at Step 3 in predicting kindergarten English oral proficiency.

Differences Between Child Language Proficiency Groups

Background variables. Chi-square and analyses of variance were performed to examine demographic differences between the two Spanish-speaking groups of students of interest, namely, those who remained predominantly Spanish speaking and the emergent bilingual children who had functionally attained English proficiency by kindergarten. Table 4 compares the demographics for the groups. Gender, immigrant status, age, and parent marital status were significantly related to language group. That is, the students who were emerging bilinguals 1 year later were more likely to be female and have single parents who were born in the United States and were 1 month older on average than those who remained predominantly Spanish speaking. Household income, family size, and level of parent education were not related to language proficiency group.

Child competence at age 4. To examine whether there were differences in child competence at age 4 between the two ELL language groups (emergent bilinguals who achieved relative proficiency in English by kindergarten and those who remained predominantly Spanish speaking), two multivariate analyses of variance (MANOVAs) were conducted with language group as the between-subjects independent variable and the children's LAPD (cognitive and language) and then teacher-rated DECA scores (initiative, self-control, attachment, and behavior concerns) as the dependent measures in turn. For efficiency, all three kindergarten language proficiency groups (emergent bilingual, predominantly Spanish, and the monolingual English comparison group) were included, and gender was also included as an additional independent grouping variable to see whether language group differences were the same across gender groups. Although there were significant main effects for gender with girls doing better than boys on all assessments at age 4 (not reported), gender never interacted significantly with language group, so interactions are not reported.

Table 5 and Figure 1 show the language group differences on the age-4 assessments. A multivariate main effect was found for language group on all subscales of LAPD, $F(2, 748) = 6.93$, $p < .001$. Least significant difference (LSD) post hoc analyses confirmed that the emerging bilingual group scored significantly higher than the predominantly Spanish-speaking group on the cognitive, $F(2, 749) = 10.65$, $p < .001$, $d = 0.28$, and language, $F(2, 749) = 11.86$, $p < .001$, $d = 0.31$, LAPD subscales. Further, the emergent bilingual group had significantly higher initial scores than did the monolingual English comparison group on both LAPD scores. The predominantly Spanish-speaking group ($M = 20.50$) displayed significantly lower scores on the language subscale compared to the monolingual English comparison group ($M = 26.20$). The same MANOVA model run for the DECA revealed a multivariate main effect for language group, $F(2, 642) = 6.26$, $p < .001$. Follow-up univariate tests established that the groups differed on all subscales: Initiative, $F(2, 642) = 11.77$, $p < .001$, $d = 0.35$; Self-Control, $F(2, 642) = 5.65$, $p < .01$, $d = 0.17$; Attachment, $F(2, 642) = 3.84$, $p < .05$, $d = 0.12$; and Behavior Concerns, $F(2, 642) = 10.07$, $p < .001$, $d = 0.30$. LSD post hoc analyses confirmed that the emergent bilingual students were significantly higher (or lower in the case of behavior concerns) than the predominantly Spanish group on all subscales of the DECA. Compared to the monolingual English group, the emerging bilingual group of students was significantly higher at age 4 on all DECA socio-emotional subscales, Initiative, Self-

Table 3
Multiple Regression Predicting Ell Children's Oral English Proficiency in Kindergarten

Model and variable	ESOL level in kindergarten				
	F change	R^2 change	β	*SE*	*t*
Model A	54.60	.07			
LAPD language score (Spanish)			.26***	.01	7.39
Model B	1.62	.00			
LAPD language score (Spanish)			.24***	.01	6.66
Total protective factors			.02	.00	0.41
Behavioral concerns			−.06	.01	−0.06
Model C	1.47	.00			
LAPD language total (Spanish)			.24***	.01	6.61
Total protective factors			.01	.00	0.28
Behavioral concerns			−.05	.01	−1.34
Attachment			.04	.01	1.21

Note. ELL = English language learner; ESOL = English as a second or other language; LAPD = Learning Accomplishment Profile–Diagnostic.
*** $p < .001$.

Table 4
Demographic Differences Between the Emergent-Bilingual and Predominantly Spanish Ells

Variable	Predominantly Spanish group (n = 219)	Emergent bilingual group (n = 304)	F	χ^2
Child's gender				9.39**
% Male	58.0	44.4		
Parent's immigrant status				9.47**
% U.S.-born	64.1	79.2		
Parent's marital status				11.24**
% Married	26.7	12.5		
Annual household income			3.60	
M	$15,504	$16,929		
SD	$6,465	$6,958		
Family size			3.20	
M	3.18	3.00		
SD	1.00	0.85		
Parent education in years			0.38	
M	11.44	11.57		
SD	2.06	1.89		
Child pre-K age (months)			18.77**	
M	55.17	56.56		
SD	3.73	3.60		

Note. For variables other than gender and age, n = 131 for the predominantly Spanish group and n = 216 for the emergent bilingual group. ELLs = English language learners; pre-K = pre-kindergarten.
** $p < .01$.

control, and Attachment. The predominantly Spanish-speaking group scored significantly lower than did the monolingual English group on Initiative.

Group differences in social skills controlling for cognitive/language skill. Our final analysis was conducted to determine if the significant differences observed above in initial socio-emotional skills between the language groups would still exist after controlling for age-4 cognitive and language skills. A MANCOVA showed that social skills (total protective factors) were still different across language groups after including initial cognitive and language skills as covariates, $F(2, 634) = 4.93$, $p < .001$. Univariate follow-up analyses showed that significant differences remained among three groups on all of the DECA subscales except for Attachment: Initiative, $F(2, 634) = 7.06$, $p < .05$; Self-Control, $F(2, 634) = 4.03$, $p < .05$; and Behavioral Concerns, $F(2, 634) = 8.64$, $p < .001$.

Thus, initial child socio-emotional skills were found to be stronger among those who were emerging bilinguals compared to the other groups. However, the emergent bilingual group also showed demographic differences from the group of Spanish-speakers who did not develop full proficiency in English by kindergarten (see Table 4). Thus, to account for the effects of demographic variables as well, a final MANCOVA was conducted to see if group differences in socio-emotional skills still remained after covarying not only cognitive/language skills as above but also several demographic variables (size of household, parent immigrant status, and parent marital status). Group differences were still present after controlling for these variables, $F(2, 404) = 2.72$, $p < .05$, even with the reduced sample size resulting from adding covariates that were present for only a subgroup of the sample. Follow-up univariate tests were conducted to determine on which of the DECA subscales the groups differed. Group differences were still detected in initiative, $F(2, 404) = 5.20$, $p < .001$; self-control, $F(2, 404) = 3.24$, $p < .01$; attachment, $F(2, 404) = 2.95$, $p < .01$; and behavioral concerns, $F(2, 404) = 2.05$, $p < .05$.

Discussion

The goal of this study was to investigate correlates of early English language acquisition among young Hispanic children in poverty making the transition to elementary school. Previous research on individual differences in L2 acquisition has typically involved older and more economically advantaged children (Andreou et al., 2005; Ordóñez et al., 2002); thus, the present study adds important new data on an understudied at-risk population about the extent to which demographic variables, initial Spanish (L1) language and cognitive skills, and children's socio-emotional skills and attachment are related to the development of English language proficiency among ELLs.

Child gender was associated with L2 proficiency in that, at least when examined bivariately, female ELLs outperformed males on L2 (English) language performance at age 4. This is consistent with previous research asserting a female L2 advantage among older students taking language courses in an academic setting (Kimura, 1987; Oxford, 1993). Interestingly, the female advantage in L2 at age 4 disappeared, however, once children's socio-emotional and behavior problems were added to the regression model, indicating perhaps that it is girls' enhanced social and

Table 5
Differences in Child Initial Competence by Language Group

Variable	Monolingual English (comparison)	Predominantly Spanish	Emergent bilingual
LAPD			
n	232	218	302
Cognitive: *M* (*SD*)	36.70_a (26.20)	29.74_a (26.49)	41.06_b (29.18)
Language: *M* (*SD*)	26.20_a (24.51)	20.50_b (21.75)	31.08_c (24.55)
DECA			
n	199	194	252
Initiative: *M* (*SD*)	58.97_a (28.34)	48.22_b (28.82)	60.95_a (29.07)
Self-control: *M* (*SD*)	65.51_a (29.00)	66.97_a (27.73)	73.49_b (24.88)
Attachment: *M* (*SD*)	52.33_a (28.58)	50.97_a (28.52)	58.05_b (29.54)
Behavior concerns: *M* (*SD*)	56.95_a (27.58)	55.17_a (28.66)	45.66_b (29.42)

Note. Subscripts indicate significant between-group differences, and those with different superscripts are different.

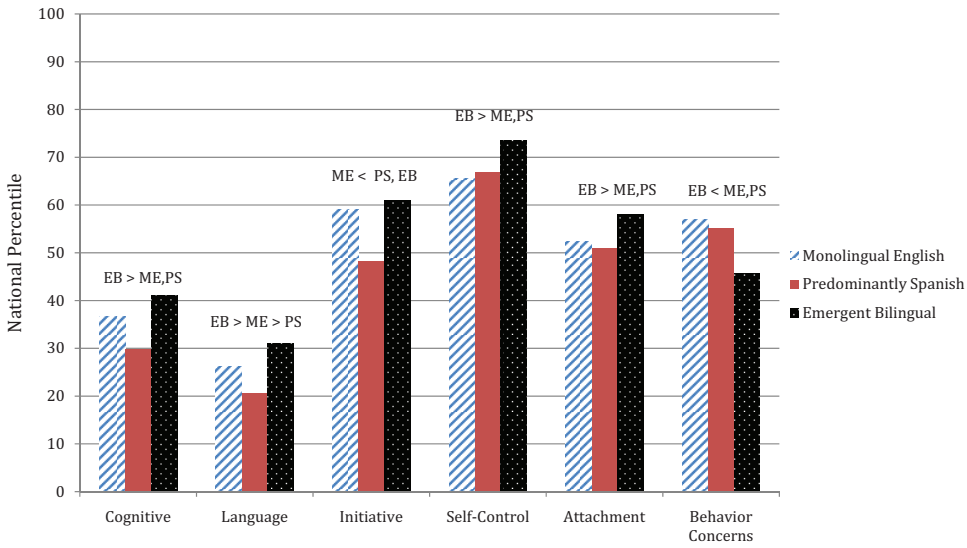

Figure 1. Language group differences on original cognitive, language, socio-emotional skills, and behavior concerns in preschool. EB = emergent bilingual; ME = monolingual English; PS = predominantly Spanish. See the online article for the color version of this figure.

behavioral skills, rather than gender itself, that are associated with L2 advantages. Also of note was that no gender differences were observed a year later in kindergarten on the district's English oral proficiency assessment for ELLs, at least when this outcome was examined continuously. When examined categorically in terms of ELL children who remained predominantly Spanish dominant versus those who were considered emerging bilinguals, the bilingual group was composed of slightly more girls. Thus, even in the early years, and with a sample of low-income, Spanish-speaking children learning English via natural exposure in school, home, and the community, there appears to be a gender difference in L2 acquisition favoring girls. However, this may be explained largely by young girls' enhanced social and behavioral skills. A female advantage in early L2 learning is especially impressive given that, at least among Puerto Rican families in the northeastern United States, mothers and daughters use more L1 (Spanish) with each other together (and, thus, less L2 [English] use) than is the case with sons (Hammer, Lawrence, Rodriguez, Davison, & Miccio, 2011).

Even though all children in the current sample were from relatively low income families at age 4, poverty status as defined by qualification for free/reduced lunch in kindergarten still predicted ELL children's English language skills at age 4 when language skills more broadly defined were measured by the LAPD. With the more restricted English oral language proficiency measure in kindergarten, however, English proficiency was not different for those ELLs who were or were not receiving free/reduced-price lunch. Maternal education was positively related to ELL children's English proficiency in kindergarten, but the association was small ($r = .09$). The associations found here between maternal education and poverty status and ELL children's English development are consistent with prior studies (Bohman et al., 2010; Hammer et al., 2012).

Other family measures, including parent birth country, family size, and marital status, differed between Spanish-speaking ELL children who became emergent bilinguals and those who remained predominantly Spanish speaking. Children with immigrant parents were less represented in the emergent bilingual group, suggesting that Hispanic parents born in the United States expose their children to more English than do first-generation immigrant families, consistent with previous research (Portes & Rumbaut, 2001). Native-born parents are more likely to have English-language reading materials available, watch English-language television, and speak English in the home than are immigrant parents (Portes & Rumbaut, 2001). Immigrant families within this Miami population are also more likely to be married than are native-born Hispanics (De Feyter & Winsler, 2009), which likely explains why children who became emergent bilinguals by kindergarten were less likely than Spanish-dominant individuals to come from a two-parent family.

Our hypothesis that strength in Spanish would predict children's L2 (English) learning was supported; children's Spanish language competence at age 4 positively predicted English proficiency a year later in kindergarten, even after controlling for other background variables. This finding supports previous research showing the importance of strong L1 language skills early on for L2 development (Collier, 1995; Cummins, 1984; Ordóñez et al., 2002; Verhoeven, 1994). L1 abilities are related to L2 acquisition, as both languages share a similar base that allows for transfer (Cummins, 1984). This finding is in line with Cummins's (1978) interdependence hypothesis, in that a certain level of L1 facility is helpful for full L2 acquisition to occur. Meaningful exposure to a first language, thereby building vocabulary and comprehension skills, is associated with success in L2 (Parra, Hoff, & Core, 2011). That this relation between L1 and L2 was found for the current sample of low-income Spanish-speaking preschool-age children is

important given that much of the relevant previous research was conducted with older and more advantaged children, often learning L2 in very different contexts. This finding also suggests that strengthening children's L1 skill may be another way to facilitate the eventual attainment of English proficiency among young ELL children. Such an idea is consistent with recent perspectives on best practices for the education of ELLs, which involve inclusion of, and emphasis on, L1, as well as L1 maintenance in early childhood bilingual education programs, rather than English-only immersion (Howes, Downer, & Pianta, 2011; Lindholm-Leary, 2001). Furthermore, ELLs who attend bilingual programs learn English faster while maintaining their L1 than do those who attend English-only (or no) programs (Espinosa, 2007; Winsler, Diaz, Espinosa, & Rodriguez, 1999).

Early cognitive skills were also hypothesized to be related prospectively to English language acquisition. Although much research has examined the cognitive *consequences* of being bilingual, few have examined cognitive skills as a predictor of who becomes bilingual in the first place. Balanced bilingualism has been associated with multiple cognitive, metacognitive, and inhibitory control benefits (see Barac et al., 2014, for a review). However, as pointed out early on by Peal and Lambert (1962), it is difficult to know whether cognitive differences observed are the causes of, or the effects of, being bilingual. The present study offers new findings with a novel, at-risk, young Spanish-speaking population, indicating that ELL children who are cognitively more advanced (measured in Spanish) at age 4 reach higher levels of English proficiency and are more likely to become an emerging bilingual in kindergarten than those with lower cognitive skills at age 4.

A major goal of this study was to examine the extent to which child socio-emotional and behavioral skills were related to English acquisition in a vulnerable population of low-income ELL preschoolers. Given the essential role of socio-emotional skills for young children's early school success, especially for children in poverty (Coolahan et al., 2000), it was hypothesized that the children with stronger socio-emotional skills at age 4 would be better equipped to acquire their second language and that the students who would become emergent bilinguals would exhibit higher levels of initiative, self-control, and attachment and lower levels of behavioral concerns at age 4 than would the ELL students who remained predominantly Spanish speaking in kindergarten. These hypotheses were supported. Children's social skills and behavior problems were associated with ELL children's English performance at age 4, and children who went on a year later to learn enough English to be categorized as emergent bilinguals had stronger initial initiative, attachment, and self-control and fewer behavior problems than did those ELLs who did not make as many gains in English over the same time period. This is a novel and important contribution to the literature. Prior work with older, more advantaged students learning L2 sequentially by taking second-language courses has shown that willingness to communicate, self-confidence, lack of anxiety, outgoingness, and motivation is related to facility of L2 acquisition (Horwitz et al., 1986; MacIntyre et al., 1998), but the socio-emotional correlates of acquisition of English for young ELL students learning Spanish and English in natural settings have not been explored much in the literature (Han, 2010a).

Bialystok and her colleagues (Barac et al., 2014; Bialystok, 2009) have clearly shown that bilingual individuals are stronger than monolinguals in inhibitory control and executive functioning, and this is seen as a consequence of the bilingual's increased experience selectively inhibiting one language and using another while speaking in complex bilingual settings. The present study offers two new possibilities for future research with respect to this body of work. First, although Bialystok and colleagues (Barac et al., 2014; Bialystok, 2009) emphasized the *cognitive* aspects of inhibitory control and executive functioning, the present study shows that young bilingual children might also have *social and behavioral* advantages of increased inhibitory/self-control over behavior. Indeed, other work has shown that young Hispanic immigrant and ELL students exhibit particularly good behavior and social skills in early childhood classrooms that could be related to enhanced behavioral self-control (Crosnoe, 2007; De Feyter & Winsler, 2009). Second, it may be that individual differences in child behavioral control and social skills (and cognitive competence) may help lead some children and not others to become fully bilingual in the first place. Thus, enhanced inhibitory control could also be a precursor of, in addition to a consequence of, becoming bilingual. This is an area clearly in need of future longitudinal research.

The current study was the first to explore attachment as a correlate of L2 acquisition among ELLs. Consistent with attachment theory that posits broad positive effects of using one's parent as a secure base to explore one's world and thereby gaining knowledge and skills in a wide variety of domains (Bowlby, 1988), parent-reported attachment with adults at age 4 was positively associated with low-income ELL children's English language skills, both concurrently and a year later in kindergarten. Prior research has shown that children with stronger attachments receive more language stimulation and experience faster growth in L1 (Meins, 1997). It would appear that similar processes are at work in L2 development. Of note, after teacher-reported social and behavioral skills were entered in the regression models, however, the attachment effect faded. This is likely due to the fact that the effect of attachment on L2 attainment is mediated by the enhanced child social skills that result from stronger attachments (Cohn, 1990). Attachment will be an important construct to explore in future research on the bilingual language development of ELLs, especially given speculation that the parent–child relationship may be in jeopardy if children adopt L2 too quickly and show L1 language loss (Wong Fillmore, 1991) and that some outcomes for immigrant children are enhanced when L1 is spoken in the home (Winsler et al., 2014).

Although the focus of this study was ELL children, we included a similarly low income, Latino/Hispanic English-speaking comparison sample for the group analyses. Several comparisons with this group are worth noting, and these are highlighted in Figure 1. For initial cognitive and language competence, the emergent bilingual children not only scored higher than the predominantly Spanish-speaking group, but they also scored higher than the (Latino/Hispanic) monolingual English group. Similarly, the emerging bilingual group was also stronger than the monolingual English group in initial social skills and behavior. Such longitudinal findings, although they still are only correlational, with directionality remaining unclear, are at least consistent with the possibility that it is broadly competent Hispanic ELL children who have better chances of becoming functionally bilingual early in schooling.

As with any study, especially one using data initially collected for other purposes in the context of a large-scale applied community-based project, there are a number of limitations of the present research. First, it would have been better to have more

extensive and systematic measures of both English and Spanish language competence, but we were not able to assess the children at age 4 in both languages and were restricted to the school district's oral English proficiency test as the only measure of English proficiency in kindergarten. To its credit, however, the kindergarten measure did have the advantage of being ecologically valid and authentic, in that it was the actual measure used by the school to make decisions about the ELL status of, and English language services provided to, children. It is also unfortunate that more detailed information was not available about the language environment of the classroom and home. For example, some children included in the English monolingual group (who reported English as the home language and who had native-like fluency in English at age 4) may still have had some exposure to Spanish in their home or the community. These are areas that could be improved upon with future research. It is also important to note that the present study took place in the unique cultural context of Miami, where much sociolinguistic support for Spanish as L1 is present, and thus it needs to be replicated in other cultural communities within the United States, where support for Spanish might not be as strong, and in other countries, where multiple languages enjoy higher or equal status. Another important limitation is that the study, although longitudinal, is still correlational in nature, meaning the direction of effect remains unclear. It is possible, for example, that ELL children with stronger initial L2 (English) skills are seen by teachers as being more socially skilled and better behaved and that teachers differentially respond to ELLs with early English proficiency by providing additional opportunities for such children to develop their social skills.

The results of the present study have numerous implications for practice with young ELL students. With an increasing population of ELLs (National Clearinghouse for English Language Acquisition, 2010) and immigrants (DHS Office of Immigration Statistics, 2008), it is essential to understand the best ways for children from culturally and linguistically diverse backgrounds to thrive in early school and to learn English. With the majority of immigrants coming from Spanish-speaking countries (U.S. Census Bureau, 2007), the current study may contribute to the understanding of how to facilitate developmental outcomes for this growing population. We examined individual difference factors that differentiate between Spanish-speaking preschoolers who, 1 year later, demonstrated English language proficiency versus Spanish speakers who did not demonstrate clear English proficiency 1 year later. Knowledge of such factors can serve to provide policy makers and educators with valuable information on how to most effectively reach English language learners of varying skill levels and backgrounds. Young ELL children in poverty are faced with a difficult situation upon school entry, given that they are already at risk for poor academic performance (Capps et al., 2005; Hart & Risley, 1995; Portes & MacLeod, 1996) and they are learning English at the same time. However, those who enter school with strong English proficiency do not differ in their later academic development compared to native English speakers, but those who learn English only after entrance to school tend to lag behind (Halle et al., 2012; Kieffer, 2008).

Our findings suggest that it may be more difficult for children in poverty, who are known to be at risk for low cognitive functioning and school readiness (Noble, Norman, & Farah, 2005), than it is for children with more economic means to acquire English and become fully bilingual, or at least that it might take a longer period of time. According to Thomas and Collier (1997), it takes ELLs 5–7 years to learn English well enough to perform at grade level on typical academic assessments, at least among those who are not as disadvantaged economically as the sample included here. ELL children in poverty, those with low cognitive skills, and those with limited linguistic competence in L1 may need additional supports to learn English early in school. Providing such children with additional high-quality language input and literacy experiences in L1 and L2 may be useful. Similarly, given that social skills, initiative, behavior, and attachment are related to the development of L2 competence, ELL children who are shy, take little initiative, are less outgoing, and who have behavioral difficulties are at particular risk for slow development of English proficiency and could benefit from additional support. Teachers may need to pay closer attention to shy ELL children who don't reach out to teachers and peers or take initiative in the classroom, to help engage them in social and learning interactions that can stimulate their (L1 and) L2 language development. Preschool teachers, thus, should not just assume that shy ELLs are going through a "silent period" and leave them alone—they need to actively work to get such children interacting and speaking with others in the classroom (Roberts, 2014). Further, it is useful for policy makers and educators to know that successful interventions for improving the social skills of preschool children (Cefai & Cooper, 2009) are also likely to have a positive effect on the English acquisition of ELL students. Finally, our finding that L1 (Spanish) competence was a predictor of future success in acquiring English suggests that early childhood education programs could also benefit from fostering opportunities for the development of L1, since doing so is also helpful toward the ultimate goal of achieving full English language proficiency.

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