

Cross-sectional associations of Spanish and English competence and well-being in Latino children of immigrants in kindergarten

BRIAN A. COLLINS, CLAUDIO O. TOPPELBERG, CAROLA SUÁREZ-OROZCO, ERIN O'CONNOR, and ALFONSO NIETO-CASTAÑÓN

Abstract

The aim of this study is to examine within an ecological model the associations of dual language (Spanish|English) competences with the emotional and behavioral well-being of young children of immigrants in kindergarten. Latino children of immigrants (n = 228) from a public school-based community sample were assessed using standardized, comprehensive measures of Spanish and English oral language competence and normed teacher reports on five dimensions of emotional and behavioral well-being and school functioning (interpersonal, intrapersonal, and affective strengths, connection to family, and school functioning). Relevant contextual factors at home (maternal education, poverty, family structure) and school (teacher experience and practices, classroom composition), as well as child factors (non-verbal IQ, gender) were considered. Spanish and English competences accounted for moderate to large portions of variance in all dimensions of well-being. The contributions of child, home, and school variables to well-being were much smaller than language competence, and in most cases, not significant. Our findings suggest that dual language competence is critically associated with the emotional and behavioral well-being and school functioning of Latino children of immigrants.

Keywords: childhood bilingualism and well being; Latino immigrant children; dual language competence; affect and childhood bilingualism.

1. Introduction

Children of immigrants comprise close to one quarter of the United States' child population, and are expected to reach close to one third by 2020, constituting the fastest growing segment of the United States' child population (Mather 2009; Suárez-Orozco and Suárez-Orozco 2001). The majority of children of

immigrants speak a language other than English in the home, which in most cases (70 percent) is Spanish (U.S. Census 2000). The increase of dual language children (unique home and school languages) over the past few decades has had an enormous impact on United States schools. However, the way children's competence in each language relates to their emotional and behavioral well-being is poorly understood and in dire need of concerted research efforts.

Latino children of immigrants are faced with multiple risk factors for emotional, behavioral, and academic problems — even more so than other minority and white youth of similar socioeconomic status (Arcia et al. 1994; Gándara et al. 1998; Steinberg et al. 1992). Some of the risk factors and challenges Latino children of immigrants face include poverty, low levels of parental education, limited access to health care, and discrimination (Hernandez et al. 2007). Latinos also have a number of strengths, such as a strong sense of community, religion, optimism, family supports, and high value of education (Pumariega 2009).

Much of the current research on the development of children of immigrants has focused primarily on the risk for emotional, behavioral, and academic problems. There is a need for strength-based models, which integrate potential protective attributes of Latino children of immigrants that may impact their emotional, behavioral, and academic well-being. Many Latino children of immigrants have shown to be extremely resilient despite risk and adversity (Masten 1994). In addition to the multiple personal, family, and community characteristics supporting Latino children, language competence in Spanish and English may be positively associated with their emotional and behavioral well-being and school functioning.

It has been well documented that language competence is a critical contributor to the emotional and behavioral development of monolingual children (Beitchman et al. 1996; Toppelberg and Shapiro 2000). However, this association has not yet been fully investigated among dual language children, who often have widely varying competences in each language. While maintaining and developing linguistic competences in both a first language (L1) and a second language (L2) can support healthy adaptation, rapid shifts from home to school language, loss of home language, and inadequate English proficiency may have negative psychosocial and educational consequences (Snow 1991; Wong Fillmore 1991).

The present study investigates the association of dual language competences with dimensions of emotional and behavioral well-being during the critical developmental stage of school entry — kindergarten. For children of immigrants, entering school typically represents the first massive contact with the English language, as well as American culture and society at large. Children's competences in their L1 (Spanish) and L2 (English) are considered in relation to their well-being (emotional and behavioral strengths and school function-

ing) within an ecological model of home and school factors as well as other child characteristics.

2. Literature review

2.1. Association of language competence and emotional and behavioral well-being

The successful development of language skills is a cornerstone of childhood mental health (U.S. Surgeon General 1999), through its direct relationship to the child's self-expression, sense of identity, and ability to negotiate and connect with peers and family members. Language encodes and labels emotions and participates in the regulations of mental states (Aragno and Schlachet 1996; Foster 1996). Language competence often underlies positive interactions with peers and adults, and the adaptive expression of emotion and appropriate response to stimuli (Farmer 1997). Additionally, language competence is critical to the ability to communicate needs and desires (Crittenden 1996). Social, emotional, and behavioral competences and strengths — such as sharing, regulating anger and other emotions, understanding directions and expectations, identifying feelings, and discussing problems — are all intricately connected to children's language competence (Ruehlman et al. 1999). Language competence is particularly important in the school setting in order for optimal learning to occur and for children to feel emotionally secure. Social skills, such as making friends, displaying a sense of humor, and responding to and expressing affection to others, also rely heavily on language competence (Copple and Bredekamp 2009).

The link between language competence and emotional and behavioral development has been evidenced in monolingual children (Beitchman et al. 1996), but empirical research focusing on dual language children is limited. For example, childhood language disorders are highly overlapped with child mental health problems in monolinguals (Cantwell and Baker 1991; Toppelberg et al. 2002). Yet this relationship in dual language children has been documented, to our knowledge, in only one study (Toppelberg et al. 2002).

Dual language children are often moving between language contexts throughout the day, as their life often demands exclusive use of the first language at home and the second language in other environments, such as school. For many children, there is a remarkable contrast between these two settings. Language at home tends to be context-embedded and communicatively based, with face-to-face and non-verbal supports to aid in understanding. In contrast, language at school is typically academic and cognitively demanding, often context-reduced and abstract, requiring higher order thinking skills and a

reliance on linguistic devices without connection to supportive context (Cummins 1979). The development of children's home language may be associated with strengthening of family cohesion and intimacy, establishing parental authority, and transmitting cultural norms, all of which can lead to healthy adjustment and a strong identification and internalization of the social values of the family (Fishman 1991; Tseng and Fuligni 2000). The development of the school and community language is crucial for academic success and long-term social and economic well-being (Bianchi 1984; Carhill et al. 2008). Children's ability to function within the school context influences school retention, graduation rates, and continuation into higher education.

Schools are also an important social context where the development of critical emotional and behavioral strengths take place (Baker et al. 2008). School is where children form friendships with same age peers as well as relationships with teachers, which contribute to emotional and behavioral development (O'Connor et al. 2011). Within school relationships, children learn to use interpersonal and intrapersonal strategies (Silver et al. 2005) and form adaptive emotional and behavioral skills (Baker et al. 2008). At school, children receive constant feedback on their behavior, on what constitutes age appropriate behavior and competences, and on how they measure up to others. Having adequate language competence to process feedback and meet expectations is critical to positive adaptations and development. The ability of the child to adapt to varying demands of the early school years affects both their current and long-term emotional and behavioral well-being and academic success (Bianchi 1984). This is particularly the case for Latino children, for whom academic disparities are well documented (Gándara et al. 1998; Steinberg et al. 1993).

2.2. *Emotional and behavioral well-being of Latinos*

The importance of positive emotional and behavioral adjustment for Latino children of immigrants is well understood by researchers and educators. Latino parents frequently share the goal of having their children develop instrumental competences and of preserving values related to the intrapersonal (*personalismo*), the interpersonal (*respeto*), connections to the family (*familismo*), the expression of affection (*cariños*) and the worth of education (*educación*) (Suárez-Orozco 2002). These types of strengths are an important part of Latino traditions and values (Chapman and Perreira 2005; Suárez-Orozco and Suárez-Orozco 2001). A multidimensional perspective that focuses on interpersonal, intrapersonal, and affective strengths as well as connections to the family and school functioning seems fundamental in gaining a deeper understanding of the well-being of Latino children of immigrants.

Interpersonal strengths are valued in Latino culture and children are encouraged to communicate with respect, defer to authority, and cooperate and act in a pleasant manner (Flanagan 1996). Intrapersonal strengths are evident in children's self-reflection, identifying feelings and their self-confidence (Ruehlman et al. 1999). Affective strengths manifest in children's ability to regulate emotions and behaviors. Family cohesion is a predominant Latino cultural value involving a strong sense of attachment and loyalty to family and the view of the family as an extension of the self (Rivera et al. 2008).

2.3. Emotional and behavioral well-being within an ecological model

Understanding child development and well-being requires consideration of the characteristics of the child, home, and school, which are particularly important when considering children of immigrants (Garcia Coll et al. 1996; Kao and Tienda 1998; Ogbu 1987; Portes and Rumbaut 2001). Ecological models posit that children develop within interrelated systems that exist at levels proximal and distal to the child and act in concert to influence development (Bronfenbrenner 1979).

Ecological factors theoretically linked to both language competence and well-being include characteristics of the child (gender and cognitive competence), the home (maternal education, poverty, and the child-per-adult ratio), and the school (teacher experience, transition practices, and the proportion of Spanish speakers) are considered in the present study.

In regards to child factors, Portes and Schaufli (1994) found that girls are more likely to retain their parents' language and often take on more family-oriented responsibilities. Cognitive competences act as protective factors among high-risk children. High cognitive functioning predicts academic achievement and positive emotional and behavioral outcomes (White et al. 1989) and is associated with bilingual proficiency in dual language children (Cummins 1977). At home maternal education, family income, and structure play a critical role in child development. Children whose families have lower incomes and/or whose mothers have fewer years of education tend to evidence higher levels of emotional and behavioral problems, while children with better educated mothers tend to be more motivated and competent (McLoyd 1998). The number of siblings has shown to be inversely related to ability and well-being (Steelman and Mercy 1980).

Factors at the school, such as the teacher's level of experience and the number of years in the profession, are closely related to the performance and well-being of children. Unfortunately, there has been a trend of the least experienced teachers working in schools with the highest need (Darling-Hammond 1994). Supporting the transition from home to school is critical in establishing

competences and social and academic skills (Pianta et al. 1999). Students develop stronger interpersonal relationships in schools with proportionately more students of their own ethnicity (Johnson et al. 2001). However, highly segregated schools tend to be less resourced and lower performing (Orfield et al. 2004).

3. Present study

The overarching goal of this study is to investigate the relationship between the L1 and L2 competences of Latino children of immigrants in kindergarten and their concurrent emotional and behavioral well-being. The present conceptualization of emotional and behavioral well-being is considered with respect to five core areas: interpersonal, intrapersonal, affective, connection to family, and school functioning. These emotional and behavioral dimensions mark key areas of childhood development (Coppole and Bredekamp 2009). The association of language competences and emotional and behavioral well-being are analyzed within an ecological model considering child, home, and school factors with an established or theoretical link in the current literature to both children of immigrants' language competence and their well-being.

3.1. Research questions

- a) How are Latino children of immigrants' L1 and L2 competences related to their emotional and behavioral well-being concurrently in kindergarten?
- b) What are the contributions of child, home, and school factors to emotional and behavioral well-being after considering L1 and L2 competences?

4. Methods

4.1. Participants

Latino dual language children of immigrants (N = 228) with demographic characteristics similar to those of Northeastern urban immigrant populations (U.S. Census 2000) were recruited from public schools in the Boston, MA area. All children in the study were born in the United States or arrived prior to age three and were first language speakers of Spanish. Mothers, families, and/or caregivers communicated solely or mainly in Spanish. Participants were sequential bilinguals, with little or no exposure to English prior to age three. At least one parent was born outside of the continental United States, with many

parents from the Dominican Republic (52 percent) and Puerto Rico (21 percent). Most of the families were living below poverty levels (86 percent). Mothers had moderate to low levels of education with slightly more than half (63 percent) having graduated from high school. Approximately half (46 percent) of the children were in single-parent households. Children in the sample aged between 5.2 and 7.0 (mean age 6.1) and consisted of equal numbers of boys and girls.

4.2. *Procedures*

Schools with high populations of Latino students were recruited to participate in the study. After determining eligibility and obtaining written parental consent, children were assessed in three 45-minute sessions, conducted at the school on separate days for each language, and in most cases within a week. A third session was designed to measure the children's cognitive competences and included non-verbal IQ tasks. Parent interviews were conducted mainly in Spanish at the children's homes by trained bilingual research assistants. Teachers reported on their background, experience, and classroom practices and children's well-being at school.

4.3. *Measures*

4.3.1. *Oral language competences.* Specific linguistic domains were measured using the *Woodcock language proficiency battery — Revised*: English and Spanish forms [WLPB-R] (Woodcock 1991). Four WLPB-R sub-test scores — Memory for Sentences, Picture Vocabulary, Listening Comprehension, and Verbal Analogies — yield an oral language cluster score (computed from the average of W scores from each sub-test and normalized according to age). Memory for Sentences is a mixed expressive-receptive measure of syntactic and semantic competence, where the child is asked to repeat words, phrases, and then whole sentences that increase in length. Picture Vocabulary is a measure of expressive vocabulary knowledge that requires naming pictures of items. Listening Comprehension is a receptive measure of syntactic and semantic competence, where the child listens to increasingly complex sentences or passages and is asked to provide the word that is missing at the end of the sentence or the passage. Verbal Analogies is a receptive measure of semantics, where the child is asked to provide a brief verbal answer to a missing item in a sentence that carries a logical relationship. The WLPB-R is a measure of language competence widely used in empirical studies and educational

settings. It has published validity, reliability, and norms for ages 2.0 to 90+ in English and Spanish; the present study uses standard scores ($M = 100$, $SD = 15$).

4.3.2. *Emotional and behavioral well-being.* Teachers reported on five dimensions of emotional and behavioral well-being and school functioning using the *Behavior and emotional rating scale — 2* [BERS-2] (Epstein 2004). This 52-item, strength-based scale assesses emotional and behavioral strengths on five subscales (interpersonal, intrapersonal, and affective strengths, family involvement, and school functioning). The Interpersonal Strengths subscale assesses a child's ability to control emotions or behavior in a social situation. The Intrapersonal Strengths subscale assesses a child's outlook on his or her competence and accomplishments. The Affective Strengths subscale addresses a child's ability to express feelings towards others and to accept affection from others. The Family Involvement subscale is a measure of the child's connection to family and focuses on the child's sense of belonging and relationship with his or her family. The School Functioning subscale focuses on a child's competence and engagement in school and classroom tasks. For each of the subscales, a standardized scaled score is used with a distribution mean set at 10 and the standard deviation at 3. Studies have documented strong psychometric properties, content, criteria, and construct validity and lack of racial or ethnic bias (Epstein 1999).

4.3.3. *Child characteristics.* Children's non-verbal cognitive ability and general intelligence was measured with the *Universal Nonverbal Intelligence Test* [UNIT] (Bracken and McCallum 1998), which is administered and completed without the use of language. The UNIT has been widely used in the cognitive assessment of children whose test performance may be affected by language impairment or second language barriers. Extensive published studies have determined the UNIT's reliability and validity to be consistently high. The full scale intelligence quotient standard score is used in the present analyses. Gender was dummy coded (female = 0, male = 1).

4.3.4. *Home factors.* Primary caregivers, for the most part mothers, responded to several questionnaires regarding the home context. Maternal Education was measured by the highest level of schooling completed by mothers (elementary only, partial or complete high school, college degree, and so on). Ordinal scores ranged from 0 (none) to 12 (MA/PhD). The child-per-adult ratio was determined by dividing the number of children by the number of adults in the household. All related and unrelated individuals living in the household under age 18 were counted as children; those older than 18 years were counted

as adults. In the present study, a child is considered to be living in poverty, and scored one on this dichotomous variable, when the household is a recipient of at least one government program which ties eligibility to income threshold levels set by federal or state poverty guidelines (U.S. Census 2000). These programs include the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), Food Stamps, Head Start, Section 8 housing assistance, and Welfare.

4.3.5. School factors. Three relevant characteristics of the school context were evaluated through teacher questionnaires — teaching experience, transition to kindergarten practices, and proportion of Spanish speakers. Number of years as classroom teachers was used as an indicator of teaching experience. The *Transition practices survey* (National Center for Early Development and Learning 1996), a 21-item comprehensive survey of practices related to facilitating the transition of children into kindergarten, was administered to teachers. A summed score of transition practices used by kindergarten teachers is used in the present analyses. Proportion of Spanish speaking students was computed by dividing the number of Spanish speaking children by the total number of children in the kindergarten classroom.

5. Results

The means and standard deviations of the scores for the study's variables are presented in Table 1. Children's oral language competence for both Spanish ($M = 67$, $SD = 19$) and English ($M = 70$, $SD = 18$) are well below the normed average mean standard score of 100. Below average performance for dual language children on measures of language competence is typical when compared to monolingual norms and has been reported in studies of similar populations using the same measures (Oller and Eilers 2002; Pérez et al. 2007). Children's non-verbal IQs were in the average range for the general population ($M = 96$, $SD = 13$). The emotional and behavioral strengths of children were average or above average in all dimensions (scaled score means 11–13 $SD = 3$). Connections to family were particularly high (1 SD above norm). Kindergarten teachers had a wide range in years of teaching ($M = 16$, $SD = 8$) and varied in transition practices ($M = 9.6$, $SD = 4.1$). The proportion of Spanish speakers in classrooms was high, with the average classroom comprised of approximately three-quarters Spanish speakers ($M = .73$, $SD = .31$).

The relationship within and across the predictor and outcome variables were analyzed using bivariate Pearson-correlations (Table 1). Of note, the main predictors, Spanish and English competence, were not significantly associated

Table 1. *Bivariate Pearson's correlations of study variables*

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14		
Oral Language Competence																		
1	Spanish	67.4	21.1	1														
2	English	69.6	18.7	.13	1													
Emotional and Behavioral Well-being																		
3	Interpersonal Strength	12.3	3.3	.19*	.21**	1												
4	Intrapersonal Strength	12.2	3.5	.26**	.36**	.68**	1											
5	Affective Strength	12.5	3.5	.15*	.23**	.71**	.82**	1										
6	Connection to Family	12.8	3.0	.11	.30**	.67**	.69**	.66**	1									
7	School Functioning	11.3	2.9	.36**	.43**	.61**	.68**	.48**	.53**	1								
Child Factors																		
8	Gender	.5	.5	-.17**	.01	-.05	-.02	.03	-.16	-.02	1							
9	Non-verbal IQ	95.5	12.5	.18**	.48**	.23**	.25**	.14	.19*	.39**	-.01	1						
Home Factors																		
10	Maternal Education	5.1	2.7	.05	.31**	.11	.20**	.14	.17*	.24**	.04	.17*	1					
11	Poverty	.86	.35	-.06	-.19**	-.17*	-.10	-.06	-.08	-.20**	-.02	-.18**	-.21**	1				
12	Children-Per-Adults	1.7	1.1	-.12	-.03	.10	.02	.03	.07	.01	.07	-.008	-.10	.25**	1			
School Factors																		
13	Teacher Experience	16.0	8.4	-.22**	-.06	.06	-.04	.07	.13	-.12	-.05	-.09	-.15	.03	.09	1		
14	Kindergarten Transition	9.6	4.1	.28**	-.01	-.05	.08	.07	.12	.14	.13	-.01	.09	.05	.01	-.06	1	
15	Proportion Spanish Speakers	.73	.31	.28**	-.20**	.07	.06	.13	-.05	.13	.08	-.09	-.08	.10	.14	.08	.38**	1

* $p \leq .05$ level. ** $p \leq .01$ level.

with one another. The emotional and behavioral outcomes were significantly associated across dimensions (r_s ranging from .48 to .82, $p < .01$). Spanish competence was significantly associated with each of the dimensions of well-being, except connection to family (r_s ranging from .15 to .36, $p < .05$). English competence was significantly associated with each of the five dimensions of well-being (r_s ranging from .21 to .43, $p < .01$).

The relationship between child, home, and school factors and language competence and well-being were also analyzed using bivariate Pearson correlations. Gender was significantly associated with Spanish competence ($r = -.17$, $p < .01$), indicating a positive relationship among girls. Non-verbal IQ was associated with Spanish competence ($r = .18$, $p < .01$), English competence ($r = .48$, $p < .01$), and each of the dimensions of well-being (r_s ranging from .19 to .39, $p < .05$) with the exception of affective strengths. Of the considered home factors, maternal education was associated English competence ($r = .31$, $p < .01$), intrapersonal strengths ($r = .20$, $p < .01$), connection to family ($r = .17$, $p < .05$), and school functioning ($r = .24$, $p < .01$). Poverty was negatively associated with English competence ($r = -.19$, $p < .01$), interpersonal strengths ($r = -.17$, $p < .05$), and school functioning ($r = -.20$, $p < .01$). Of the considered school factors, Spanish competence was associated with teaching experience ($r = -.22$, $p < .01$) and kindergarten transition practices ($r = .28$, $p < .01$). The proportion of Spanish speakers in the classroom was associated with Spanish competence ($r = .28$, $p < .01$) and negatively associated with English competence ($r = -.20$, $p < .01$).

Spanish and English competence accounted for a moderate to large proportion (Cohen 1988) of variance (13–36 percent) in all five dimensions of well-being (Table 2). Dual language competences accounted for 13 percent of the total variance of interpersonal strengths (Spanish competence, entered first in the block, accounted for 6 percent and English competence, entered second, accounted for an additional 7 percent); 25 percent of the total variance of intrapersonal strengths (Spanish 12 percent and English 13 percent); 13 percent of the total variance of affective strengths (Spanish 6 percent and English 8 percent); 13 percent of the total variance of connection to family (English 10 percent); and 36 percent of the total variance of school functioning (Spanish 21 percent and English 15 percent).

In each of our models, language competences were the strongest predictors of well-being. None of the subsequent blocks of child, home, or school variables accounted for a significant change in variance in any of the five dimensions of well-being above and beyond that of language competence. Teaching experience was the only other individual predictor with a significant association, and solely with connection to family ($\beta = .19$, $p < .05$). The bivariate correlation was not significant, however, indicating an association only after holding the other predictors in the model constant.

Table 2. *Emotional and behavioral well-being regression models*

	Interpersonal Strengths					Intrapersonal Strengths				
	Block					Block				
	1	2	3	4	5	1	2	3	4	5
Oral Language Competence										
Spanish	.25**	.19*	.18*	.20*	.21*	.35**	.27**	.27**	.28**	.26**
English		.26**	.17	.15	.17		.37**	.32**	.29**	.30**
Child Factors										
Gender			.00	-.02	-.01			.03	.03	.02
Non-Verbal IQ			.18	.16	.16			.09	.09	.09
Home Factors										
Maternal Education				.02	.03				.11	.11
Poverty				-.13	-.13				.00	.00
Child-Per-Adults				.15	.14				.08	.07
School Factors										
Teacher Experience					.08					.03
Kindergarten Transition Practices					-.14					.00
Proportion of Spanish Speakers					.09					.05
R^2	.06**	.13**	.15**	.18**	.20**	.12**	.25**	.26**	.27**	.28**
ΔR^2	.06**	.07**	.02	.03	.02	.12**	.13**	.01	.01	.00

Notes: Standardized Beta coefficients (β) for each predictor and outcome (and subsequent blocks) are listed. Total variance (R^2) and change in total variance (ΔR^2) for each block of predictors are listed.

* $p \leq .05$ level. ** $p \leq .01$ level.

6. Discussion

The main purpose of this study was to investigate the association of dual language competences with emotional and behavioral well-being in Latino children of immigrants in kindergarten. The present study documents the associations of both Spanish and English with children's concurrent well-being. The second purpose of the study was to examine the contribution of child, home, and school factors to children's emotional and behavioral well-being and to the development of dual language competences. Language competence variables were the strongest predictors in our models. The contributions of child, home, and school variables to well-being was minimal and, in most cases, non-significant after considering language competence.

The effect of language competence was moderate to large for each of the five dimensions of well-being considered in the study. These findings are particularly relevant considering that predicting well-being during the early school years is difficult. It has been recognized that the majority of variability in children's early school adjustment remains unexplained (Pianta et al. 1999; Pianta

Affective Strengths					Connection to Family					School Functioning				
Block					Block					Block				
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
.23**	.17*	.18*	.18*	.15	.17	.11	.10	.11	.13	.46**	.38**	.37**	.38**	.31**
	.28**	.27**	.26**	.28**		.33**	.30**	.27**	.26**		.39**	.31**	.26**	.29**
		.09	.08	.07			-.07	-.07	-.08			.02	.00	-.03
		.04	.03	.05			.06	.05	.07			.16	.14	.15
			.04	.05				.05	.06				.09	.08
			-.03	-.03				-.07	-.07				-.13	-.14
			.06	.03				.09	.07				.06	.04
				.09					.19*					-.01
				-.03					.16					.04
				.15					-.09					.15
.06**	.13**	.14**	.15**	.17**	.03	.13**	.14**	.15**	.21**	.21**	.36**	.38**	.40**	.43**
.06**	.08**	.01	.00	.02	.03	.10**	.01	.01	.05	.21**	.15**	.02	.02	.02

and McCoy 1997). Furthermore, emotional and behavioral well-being during the early years of school is closely related to many short and long-term outcomes such as academic success, employment, and personal resilience (Cornwall and Bawden 1992; Kameenui and Simmons 1998). Our findings strongly suggest a critical and unique relationship between the L1 and L2 competence of Latino children of immigrants and their well-being. These extend previous findings that the majority of children with language deficits also experience adjustment problems (Beitchman et al. 1996; Toppelberg et al. 2002; Toppelberg and Shapiro 2000).

In the present study, children’s dual language competences (in both Spanish and English) were closely linked to their interpersonal, intrapersonal, and affective strengths. This suggests that children who are able to express themselves in both their first and second language and understand the language being used around them may feel more secure and self-confident, and thus may be better able to form stronger relationships. Both Spanish and English competence were associated with school functioning. Meaningful communication is essential for optimal learning and meeting academic expectations. Competence

in both the first and second language is associated with cognitive, social, and academic benefits (Cummins 1977), which is further evidenced in our study.

Furthermore, our analyses indicate the unique role of English competence and teaching experience in children's connection to family. This is surprising as all of the children in the study come from Spanish speaking families. The finding could reflect that experienced teachers may know more about the well-being of children who are able to communicate more effectively in English, and that the connection to family may be difficult for teachers to recognize without having a strong relationship with children. The large contribution of English competence to school functioning is not surprising, as previous research has demonstrated the importance of developed English language skills for academic achievement and school success (Carhill et al. 2008; Ruiz-de-Velasco et al. 2000; Suárez-Orozco and Suárez-Orozco 2001).

A closely related aim of this study was to examine the association of dual language competences and children's well-being within an ecological framework. The adaptation and development of children at school is influenced by individual, family, and institutional characteristics (Bronfenbrenner 1979). In our models, the most proximal factors were considered first and less proximal factors were examined subsequently. Language competence variables were the strongest and, in most cases, the only significant concurrent predictors that explained the well-being outcomes. By including rival predictor variables shown to be associated with children's linguistic and psychosocial development, we were able to get a relatively unbiased estimate of the effect of language competence on well-being. Factors at home, such as maternal education levels, poverty, and the ratio of children per adults, did not contribute to our models beyond the linguistic predictors. Furthermore, factors in school, such as teaching experience, kindergarten transition practices, and proportion of Spanish speaking children in the classroom, did not contribute to our models beyond the linguistic predictors. As language competence was, for the most part, the only significant variable in our inclusive analytical models, we can suggest that dual language competence is a strong contributor to children's well-being.

It is important to note that the well-being of the children in the present study is average to above average. Each of the means for the five dimensions of well-being are above the normative mean (scaled score of 10). Children in our sample mean averaged a full standard deviation above the normative mean in connection to family (scaled score of 13). This finding is highly encouraging considering that the majority of the children in the sample live with multiple established risk factors (high levels of poverty, limited access to health care, discrimination, and immigration stress). The overall emotional and behavioral strengths of the children may be related to deeply held values in Latino families, including a strong sense of family, respect, courtesy, and loyalty. These

are commonly emphasized in Latino cultures. The strong emotional and behavioral well-being of the children in the sample could be a result of Latino parents' emphasis on their children being *bien educado* (responsible and respectful members of society).

7. Conclusions

This study has several potential implications for a quickly growing child population that often grows up in linguistic isolation, enters school at a disadvantage, and experiences increasing academic achievement gaps and mental health disparities over time. There is a need for systematic investigation of the development of L1 and L2 competence and psychosocial well-being in dual language children. This study adds important findings to the early identification of well-being and language development and may inform educational policy and teaching strategies for children of immigrants in the following ways.

This study suggests the importance of developing the home and school languages when considering the well-being of young children at school. Increased language competence comes with increased ability to self regulate, express and understand feelings, and create knowledge and awareness of emotions, forming the basis for positive emotional and behavioral adaptation (Raver and Knitzer 2002). Thus, children who have strong L1 competences are able to develop positive emotional and behavioral skills at home, which in turn contribute to the classroom. Children who have not yet fully developed necessary L1 competences may come to school unequipped to handle the increased cognitive, social, and emotional demand and may have a higher rate of emotional and behavioral problems than those who are fluent in their L1. Competence in the L2, the school language, may aid in effective communication, cooperation, direction following, problem solving, and the development of a range of academic skills.

Our findings indicate that the average child in our sample enters school with average to above average levels of well-being. However, we also know from previous literature that Latino children of immigrants are at a high risk for academic struggles and emotional and behavioral problems. As dual language competence is associated with well-being in Latino children, educational and mental health programs should consider targeting the acquisition of competences in both the L1 and L2.

In this study we found that L1 and L2 competences account for over one third of the variance of school functioning. Specialists should consider both of these areas of child development in educational and clinical settings. Consideration of both the L1 and L2 is critical in the assessment of dual language children. From an educational perspective, we can suggest that supporting the

development of both the L1 and L2, especially during the early school years, is linguistically and psychologically appropriate. It is important that school programs establish a connection between the home and school by incorporating aspects of the home and community into the school curriculum. Targeting the development of L1 and L2 competences at school could be beneficial to children's emotional and behavioral well-being.

*Hunter College, Harvard Medical School, Judge Baker Children's Center,
New York University and Boston College*

Correspondence addresses: bcollins@hunter.cuny.edu; claudio_toppelberg@hms.harvard.edu; cso2@nyu.edu; eoc2@nyu.edu; alfnie@gmail.com

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