



Examining the Role of Parental Acculturation Strategies and Language Attitudes in Shaping Heritage Language Proficiency in Children of Turkish Descent in the United States

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ABSTRACT

This study investigates the relationship between acculturation and language attitudes among Turkish immigrant parents and their children's heritage language proficiency, using Vygotsky's sociocultural theory (Vygotsky, 1978) and Berry's acculturation theory (Berry, 1997). Fifty-two Turkish parents (M age = 38.15, SD age = 4.84) completed questionnaires on acculturation and language attitudes, while their children (M age = 8.23, SD age = 2.18) completed vocabulary tests. Results reveal a positive correlation between parents' separation attitudes and supportive language practices, emphasizing Turkish use at home. Younger children showed higher heritage language proficiency, highlighting the importance of early language acquisition. Active Turkish usage among siblings also positively impacted proficiency, while passive exposure through media did not. These findings suggest that immigrant parents' cultural integration attitudes shape their language management strategies, influencing their children's heritage language retention. The study advocates for modifying immigrant parents' acculturation attitudes to enhance heritage language maintenance, proposing targeted bilingual interventions to promote effective language management in immigrant families (Halsted, 2015), with implications for improving bilingual education strategies for immigrant students.

Keywords: Bilingualism, heritage language and culture, immigration, Turkish immigrants in the U.S.

Introduction

The demographic landscape of the United States (U.S.) is increasingly characterized by its diversity, significantly shaped by the influx of bilingual immigrants (Hoff, 2013). Among these, Turkish immigrant families have marked a notable increase over recent decades, becoming one of the fastest expanding demographic groups in the country (Atmaca-Süslü, 2014; Balgamis & Karpas, 2010). A pivotal challenge confronting these families is navigating the complexities of acculturation and preserving their heritage language (HL), a task that involves balancing the adoption of host society norms with the maintenance of cultural and linguistic heritage (Barret, Kuperminc, & Lewis, 2013; Gebrekidan, 2014; Hoff, 2018; Nisanci, 2020).

The process of acculturation and its implications for family dynamics within diverse ethnic groups has garnered considerable attention in scholarly discussions (Choi et al., 2008; Filmore, 2000; Weaver & Kim, 2008). Defined as the multifaceted changes in values, practices, and social norms resulting from continuous intercultural interactions (Ayçiçeği-Dinn & Caldwell-Harris, 2011; Schofield et al., 2008), acculturation encompasses shifts in beliefs, language attitudes, and usage, stemming from engagements with disparate cultural milieus (Berry & Vedder, 2016). The intricate linkage between acculturation and language practices is particularly emphasized, with research underscoring how the acculturative journey reshapes both heritage cultural identities and linguistic repertoires (Gebrekidan, 2014; Tardif-Williams & Fisher, 2009). Immigrant parents employ varied strategies to master their children's HL proficiency, reflecting a spectrum of acculturation and language attitudes that diverge across different ethnic and racial backgrounds (Lee & Gupta, 2020; Pong et al., 2005).

Acculturation among Immigrant Families

The interplay between acculturation and language is a main point in scholarly discussions, highlighting the transformative impact of immigration on heritage culture and language (Gebrekidan, 2014; Tardif-Williams & Fisher, 2009). Immigrant parents employ diverse strategies to advance their children's heritage language development, reflecting varied acculturation and language attitudes across different ethnic and racial groups (Lee & Gupta, 2020; Pong et al., 2005). Parental acculturation attitudes play a pivotal role in children's second language development, where positive attitudes towards the heritage language are inversely related to parental proficiency in the majority language, thereby influencing the preservation of the heritage language (Troesch et al., 2020). This relationship underscores the importance of parental language proficiency in shaping children's linguistic preferences, with a notable correlation between parental proficiency in the majority language and children's linguistic inclinations towards it (Hammer et al., 2012; Nesteruk, 2010).

Language acquisition in immigrant contexts often mirrors broader cultural adaptation processes, with bilingual environments being particularly prevalent among immigrant families in the U.S. (Halsted, 2013, 2015; Hoff, 2018; Tardif & Geva, 2006). Bilingual immigrant children's language development trajectories can diverge significantly from those of their monolingual non-immigrant peers, often navigating multilingual and multicultural environments from an early age (Hoff, 2013, 2018; Miller, 2016). This complexity underscores the critical role of immigrant parents in advocating for their children's bilingual development, aligning with Berry's (1997) acculturation theory, which advocates for bilingual upbringing to foster harmonious integration into mainstream society while maintaining familial cultural ties.

Emerging research in acculturation psychology suggests that positive parental attitudes towards HL maintenance are inversely related to their proficiency in the majority language, highlighting a nuanced interplay between cultural adaptation and linguistic competencies within immigrant families (Troesch et al., 2020). Consistent with this, first-generation immigrants' success in HL preservation is often contingent upon their educational background and migration motivations, with a significant correlation observed between parental proficiency in the majority language and their children's linguistic preferences, where greater parental fluency often predisposes children towards favoring the majority language over their HL (Hammer et al., 2012; Nesteruk, 2010).

Bilingualism and Heritage Language as Part of Bilingualism

Clarification of two important concepts is essential before proceeding. Bilingualism is commonly understood as the ability to communicate in more than one language or two monolinguals in one individual (Trask, 2007). Yet, this broad definition fails to capture the rich, varied experiences of bilingual individuals, including the diverse trajectories of language acquisition and proficiency they may follow (Bialystok, 2012; Lust et al., 2016). These trajectories give rise to different types of bilingualism, such as dominant versus balanced or early versus late bilingualism, each with its unique characteristics (Flege et al., 2002). Beyond proficiency, bilingualism encompasses complex sociolinguistic and psycholinguistic dimensions, reflecting the intricate interplay between social context and cognitive processes in language use (Montrul, 2015). In the context of this study, we focus on bilingualism within immigrant families, where bilingual environments are notably prevalent (Halsted, 2013, 2015; Hoff, 2013, 2018). Such environments differ markedly from those of monolingual, non-immigrant families, with distinct implications for language development (Hoff, 2013, 2018).

Maintaining heritage languages (HL) is a multifaceted process influenced by various factors. HL represents another crucial concept, denoting a language that immigrants bring to their new country, often maintained within the family unit (Bayram & Wright, 2016; Melo-Pfeifer, 2015). This form of bilingualism contrasts with the acquisition of the majority language, typically the dominant

language of the host country and the medium of instruction in schools (Byers-Heinlein & Lew-Williams, 2013). In the U.S., English serves as the current majority language.

The quality of parental input plays a key role in child HL acquisition, highlighting the importance of exposure to diverse language varieties (Daskalaki et al., 2020). Positive parental attitudes and beliefs are identified as significant contributing factors to HL maintenance (Lekatompessy, 2021). Moreover, the linguistic environment where HLs are used significantly impacts their preservation. Research has shown that a rich and varied linguistic environment, allowing individuals to use their HL with different people and in various contexts, enhances language development and maintenance (Schmid & Karayayla, 2019). Community support is essential for the vitality of HL, underscoring the necessity for robust language programs with community backing (Đông, 2023). Additionally, motivation for maintaining HL varies among different learner groups (Hayakawa et al., 2022). Factors such as language proficiency, cultural identification, and language ideology influence language shift and maintenance (Idaryani & Fidyati, 2022). Challenges to HL preservation efforts can impede their maintenance, highlighting the complexities involved in ensuring the continuity of these languages (Sharaningtyas & Sumiarni, 2023).

The desire to preserve HL among immigrant families in the U.S. is common, while influenced by various factors, including societal pressures and attitudes towards bilingualism (Bayram & Wright, 2016). For instance, negative societal views on HL can diminish parents' motivation to pass on their HL to their offspring (Ghimenton, 2015). Additionally, factors such as children's academic success and parental education levels can sway family language preferences towards the majority language (Nesteruk, 2011). Attitudes towards HL maintenance vary among immigrant communities and are context-dependent, as evidenced by the differing approaches of Chinese parents in Montreal and Maltese immigrants in Melbourne towards HL preservation (Borland, 2006; Curdt-Christianse, 2009).

The surrounding context significantly influences the preservation of HL, particularly within the educational framework where it is nurtured (Bialystok, 2018). The host nation's stance on valuing HL preservation acts as a form of integrative support for immigrant families. Typically, children of immigrants lack formal education in their HL, making the family the primary unit for HL socialization (De Houwer, 2009; Fitzgerald, 1993; Park, 2013). Furthermore, fostering a balanced bilingual environment can enhance family well-being, highlighting the importance of HL maintenance in immigrant settings (De Houwer, 2015). Importantly, the motivation of parents to preserve HL is shaped by their positive experiences with bilingualism, which, in turn, influences their language attitudes and practices (De Houwer, 2006).

Furthermore, intra-family attitudes towards HL maintenance can vary, influenced by external factors such as societal acceptance of bilingualism and attitudes towards immigrants (Canagarajah, 2008; Fitzgerald, 1993). These attitudes are not fixed but evolve in response to the changing sociocultural landscape, underscoring the dynamic nature of language maintenance. This dynamism highlights the need for nuanced research into language attitudes among diverse immigrant groups in the U.S.

Parental Language Attitudes: Raising Children in Multicultural and Multi Linguistic Settings

The exposure to languages significantly influences proficiency in both HL and the majority language, with initial stages often seeing HL speakers more proficient in their native tongue during early childhood (Ertanir et al., 2018; Hoff, 2018). However, the onset of formal education in the host country frequently interrupts HL development, attributed to a reduction in language input, thus slowing bilingual language development compared to monolingual peers (Halsted, 2015; Hoff & Place, 2013). Despite this, research indicates that when considering total vocabulary across both languages, bilingual children's capacity can match or surpass that of monolingual children (Barac & Bialystok, 2012; Rinker et al., 2016).

The ability to switch between languages is an essential skill for children of immigrants (Polinsky & Kagan, 2007), heavily influenced by the facilitation methods employed by their parents. These methods, reflective of parental language attitudes, significantly impact HL proficiency within immigrant families (Park & Sarkar, 2007). Such attitudes are critical in shaping family dynamics and creating supportive environments conducive to language learning (Park & Sarkar, 2007; Pearson, 2007).

Language attitudes, defined as the underlying sentiments towards one's own or others' languages (Cherciov, 2013), play a pivotal role in establishing a nurturing linguistic environment at home, particularly for HL acquisition (Park, 2013). Consequently, bilingual immigrant parents in the U.S. are encouraged to adopt a family language policy that might include home literacy activities, cultural excursions, and visits to their homeland, all aimed at enhancing HL exposure through diverse interactions (Ghimenton, 2015; Place & Hoff, 2011; Schwartz & Moin, 2012).

Theoretical Explanations

The present study draws on Vygotskian socio-cultural theory (1978) and Berry's acculturation theory (1997) to conceptualize Turkish immigrant families' experiences in the U.S. More specifically, Turkish parents' unique experiences while rearing children within different cultures, ideas, and languages will be scrutinized in a framework of socio-cultural and acculturation theories.

According to Vygotsky (1978), children are active learners who internalize the language development process within specific cultural contexts and socio-cultural settings. While immigrant children preserve their HL, they lack the heritage cultural context, impacting their HL development skills. Sometimes, their majority language deteriorates due to acquiring two languages at the same time. Thereby, both heritage and majority cultures transmit various strategies that guide children on thinking, values, and beliefs that impact their cognitive-developmental process (Salkind, 2004). Because the production of language is strongly linked to the accumulation of cultural practices (Rogoff, 2003), the language developmental process for bilingual immigrant children follows slightly different steps than their counterparts.

Berry's acculturation theory (1997) has been very influential in acculturation research. The type of question such as "What happens to an individual's well-being who is born and raised in one culture and then s/he attempts to live in a new culture?" leads to a growing amount of research on the adaptation process of immigrant families and their children (Berry & Vedder, 2016; Berry, 2003). The fourfold paradigm of acculturation theory classifies four acculturation strategies as a response to new "stress-inducing" (Berry, 1997; 2003): 1) assimilation, not wishing to maintain cultural identity or seek daily interactions with other cultures, 2) separation/segregation, to wishing to avoid interacting with others and only holding one's own culture, 3) integration, maintaining both one's own culture and interacting in the larger society, and 4) marginalization, little interest in persevering ethnic culture and in having relations with mainstream cultures (Berry, 1997).

Berry's four acculturation strategies have been used to examine immigrant populations and the integration strategy was found as the most effective and successful adaptation among various acculturating groups (Berry, 2003; Tardif-Williams & Fisher, 2009). However, potential variations should be considered instead of focusing on the integration strategy, over assimilation, separation, and marginalization. For example, immigrants may prefer to utilize different acculturation strategies to find the most fitting one when settling in host countries. Also, their separation attitudes can be the result of the maintenance of their heritage culture and language. Thus, Berry's acculturation theory (1997) received several criticisms, such as from Bhatia and Ram (2001). They argue that immigrant individuals tend to have different acculturation attitudes based on where they come from. If immigrants come from Europe to the U.S., their strategy will be different than people coming from Africa to the U.S. They also criticized Berry's acculturation theory for suggesting that integration attitudes are seemingly the best-fitting attitudes for immigrants. They stated that other socio-political factors play a crucial role during the newcomers' acculturation process. This study aims to explore these complexities and their implications for language management in immigrant families.

The history of Turkish immigration to the U.S. predates the Immigration Act of 1965, with flows traceable back to as early as the 19th century (Reimers, 1985). This migration can be categorized into three distinct waves: the early arrivals between 1820-1921, the mid-20th century immigrants from 1950-1970, and the post-1970 influx (Balgamis & Karpas, 2008). The initial wave was characterized by the influence of American missionaries in the Ottoman Empire, encouraging Turkish students to seek education in the U.S. Those from this era either returned to Turkey or fully integrated into American society, losing ties with subsequent Turkish immigrant communities (Balgamis & Karpas, 2010).

During the second wave (1950-1970), despite restrictive immigration policies in the U.S., improved bilateral relations post-World War II fostered educational and professional exchanges in fields such as the military, engineering, and medicine. Many among this cohort remained in the U.S., contributing significantly to their and their children's educational and professional success across diverse sectors (Atmaca-Süslü, 2014; Balgamis & Karpas, 2010).

The most recent wave, beginning around 1970, has seen approximately 200,000 Turkish immigrants establishing vibrant communities and cultural organizations, particularly in urban centers like New York City, New Jersey, and Chicago (Balgamis & Karpas, 2010). Despite the growing presence of Turkish Americans, scholarly exploration of their familial and cultural dynamics remains limited, with a few notable exceptions (Isik-Ercan, 2014; Nisançi, 2020).

This study aims to bridge this gap by delving into the experiences of Turkish-American families, particularly how their cultural practices influence the bilingual upbringing of their children in the U.S. Specifically, it examines the correlation between parental demographics (such as age, education level, duration of U.S. residency, and child's age) and children's HL proficiency, focusing on children aged 5-11. Through this investigation, the study addresses two primary research questions, shedding light on the nuanced experiences of this unique immigrant group.

Research Questions

1. How strongly are Turkish immigrant parental attitudes about their language and acculturation (marginalization, assimilation, integration, and separation) related?
2. How strongly are demographic (e.g., parental age, the length of living in the US) factors related to children's heritage language proficiency?

METHOD

Description of Participants

52 Turkish parents (M age = 38.15, SD age = 4.84) and their children (M age = 8.23, SD age = 2.18) living in various states participated in this study, of which

20 children were girls and 32 were boys. 75% of parents had more than one child, 25% of the parents had one child, 44% were two children, 19% were three children, 10% were four children, and 2% were five children. The mothers ranged from 28 to 49 years, with a mean age of 38 years. The fathers ranged from 32 to 53 years, with a mean age of 41 years.

The majority of mothers (approximately 48%) from the sample had earned bachelor's degrees, 4% had earned associate degrees, 17% had earned master's degrees, 15% had earned doctoral degrees, and 15% had completed their high school education. Most fathers (approximately 42%) from the sample had earned doctoral degrees, 27% had earned master's degrees, 25% had earned bachelor's degrees, and 6% had completed their high school education. The total family income was greater than \$125,000 for 33% of the families, between \$74,000 to 125,000 for another 33% of the families, between \$50,000 and \$75,000 for 21% of the families, between 25,000 to 50,000 for 12% of the families, and less than, \$25,000 for the remaining 2% of families. The mother's age of arrival in the U.S. ranged between 18 to 36 years with a mean age of 26. The father's age of arrival in the U.S. ranged from 0 to 40 years with a mean age of 25. The length of time parents lived in the U.S. ranged from 2 years to 22 years ($M = 14.10$, $SD = 6.17$). 6 out of 52 children were born in the U.S. Six immigrant children arrived in the U.S. before the age of three (range: 2 to 5 years).

Several inclusion criteria were used for the current study: bilingual (Turkish–English) or multilingual children (Turkish–English plus additional language(s), the children were required to be aged between 5 and 11 years old, at least one parent must have been born in Turkey and they must speak Turkish as a native language, at least one parent must have been born in Turkey and they must speak Turkish as a native language, at least one parent must be a first-generation immigrant (was not born and raised in the United States), the parents must both have lived in the U.S. for at least two years, the children must be US-born or have been living in the U.S. for at least two years, and the children must not have any known physical or mental disability. The age range was selected because it guarantees that the children have been exposed to Turkish and American cultures and to English as a second language for six months to one year. The age-group selection was also based on the widely accepted notion that necessary language skills are formed by five in general (Ambridge & Lieven, 2011). Recruitment strategies included formal networks (cultural centers) and informal networks (social media and email groups).

Parent Measures

Family Demographic Questionnaire. Parents answered 13 demographic questions about age, education, place of birth, employment status, number of siblings, and length of time in the U.S.

The Parents of Bilingual Children Questionnaire (PaBiQ). The Parents of Bilingual Children Questionnaire (PaBiQ; Tuller, 2015) was used to obtain additional demographic information from the parents of immigrant bilingual children. The questionnaire has several translations/adaptations, including in Turkish and English. The Turkish version of the PaBiQ was available for parents who wanted to fill out the questionnaire in Turkish (Paradis et al., 2010). The PaBiQ consists of 31 questions grouped into sections including: general information about the child (4 questions), child early history (7 questions), current language skills (5 questions), comparison between languages used at home (3 questions), languages spoken in other contexts (3 questions), demographic information about the mother and the father (8 questions), and difficulties in the language (1 question). Parents are asked to respond to both yes-no prompts (e.g., "Has your child ever had any hearing problems or frequent ear infections?") and to Likert scale prompts (e.g., "Compared to other children the same age, how do you think your child expresses him/herself in?").

Acculturation Attitudes Questionnaire. Parents' acculturation experiences were measured by a modified version of the 32-item Acculturation Attitudes Scale (Ataca and Berry, 2002). The 32-item scale included eleven attitude domains: child-rearing style, children's values, children's moving out, friendship, social activity, food, holiday celebration, language use, decoration, lifestyle, and culture. There were eight statements for each of the 4 acculturation attitudes. Examples of acculturation statements on the survey include, for assimilation (e.g., "I would like my children to learn American values and customs more than Turkish values and customs"), separation (e.g., "I expect my children to live with me until they get married"), marginalization (e.g., "Most of the time I don't care which way I live"), and integration (e.g., "I would like my children to be raised in both the American and the Turkish ways"). The 32 items were randomly ordered in the scale and responses ranged from "strongly disagree" (1) to "strongly agree" (5).

A Turkish translation of the questionnaire was available for parents who preferred to answer in Turkish. In the original scale, Cronbach's alpha reliability coefficients for each attitude were reported as .83 for assimilation, .89 for separation, .84 for integration, and .78 for marginalization (Ataca and Berry, 2002). The Cronbach alpha reliability coefficients in the 32-item modified version of the acculturation attitudes scale ($M = 85.35$, $SD = 10.525$, N of items = 32) in the present study had average internal consistency, $\alpha = .679$.

Language Attitudes Questionnaire. Parents answered a modified version of the Language Attitudes Questionnaire (Makarova et al., 2017). This questionnaire assessed the parent's knowledge of and attitudes about Turkish, English, and other languages the parents use within and outside the family. It also assessed the children's use of language, exposure to language, community contact. The questionnaire consists of twenty-eight a yes/no types of questions (e.g., Do you think your child is exposed enough into Turkish child speaking environment?), multiple-choice questions (e.g., What language(s) do you speak to your

spouse/partner at home daily?), and short questions (e.g., Are there any concerns about your child's Turkish?). In the present study, the 28-item modified version of the language attitudes scale ($M = 56.19$, $SD = 5.061$) in the present study appeared to have average internal consistency, $\alpha = .660$.

Children Measures

Children Outcomes: Language Skills, TIFALDI. Acceptable measures of language proficiency in both Turkish and English do not exist. Instead, Children's Turkish competency was assessed via a standardized language development test designed and normed for monolingual children. The receptive vocabulary subtest of the Turkish Expressive and Receptive Language Test (TIFALDI) was invented to assess Turkish-speaking children's expressive vocabulary skills (Berument & Guven, 2010). It can be used to assess the expressive vocabulary skills of children aged 2 to 13 years old. The test manual reports moderate internal consistency ($\alpha = .88$ to $\alpha = .96$) and alternate form reliability estimates (.70 to .94) for the standardization sample.

Translation Process

Several study materials (recruitment email, consent form, demographic and language attitudes questionnaires) were translated from English to Turkish. Acculturation Attitudes (Bektas et al., 2009) and Parents of Bilingual Children (Tuller, 2015) questionnaires were already available in English and Turkish. The researcher performed back-translation with two bilingual researchers who hold degrees in psychology and western language degrees. The bilingual researchers translated all materials and acted as cultural translators of the concepts that the participants tried to communicate. Every question was carefully checked to address ambiguous wording and to guarantee the same meaning in both languages.

The aim was to ensure conceptual and linguistic equivalence in the final form of the questionnaires. In the first step, the researcher translated the questionnaire's items from English to Turkish transparently. The translators discussed any discrepancies in the two translations based on clarity and culturally appropriate sentence structures in the next step. There were only minor disagreements between the translators. In the final step, after discussing a few translated items, the translators reached an agreement on the final Turkish version of the items.

Procedure and Sample Size Rationality

Before data collection, participants received all materials, including consent forms, through a password-protected (for confidentiality reasons) online survey link using Qualtrics. After verbal instructions, they were administered a packet of questionnaires including General Family Demographics, Parents of Bilingual Children (Tuller, 2015), Acculturation Attitudes (Ataca and Berry, 2002), and Parenting Language Attitudes (Makarova et al., 2017). Both English and Turkish

versions of the questionnaires were available to participants, but all parents preferred the Turkish version. As an indicator for children's Turkish proficiency, their expressive skills were assessed by TIFALDI. Upon the study's completion, participants were compensated \$20 for their participation in the research.

The recruitment and testing process was constrained by accessibility to Turkish immigrant families in the USA. Within these constraints, 52 participants represented a feasible and manageable number that allowed us to complete the study within the allotted resources while still adhering to ethical guidelines for participant treatment and data collection. Additionally, similar studies in the field have utilized comparable sample sizes. For example, Nesteruk & Marks (2011)'s study used sample sizes in the range of 50-60 participants, supporting the adequacy of our sample size for addressing the research questions and ensuring the findings' reliability and validity.

RESULTS

Table 1 shows the means and standard deviations of the independent variables (parental age, child's age, length of living in the U.S., parental language attitudes, acculturation attitudes, child's expression him/herself in Turkish, Turkish language used at home with siblings, the number of native speaker friends in family's social environment, the amount of reading books in Turkish, the amount of watching videos, movies, TV in Turkish) and a dependent variable (children's heritage language proficiency).

Table 1
Participant Characteristics (N = 52)

Variable	<i>M</i>	<i>SD</i>
TIFALDI Expressive	85.88	22.59
Language Attitudes	3.75	.34
Child's expression him/herself in Turkish ^a	3.15	.94
Turkish language used at home with siblings ^b	3.78	1.23
The number of native speaker friends	2.54	.83
The amount of reading in TR ^c	3.19	1.72
The amount of watching in TR ^d	2.65	1.31

a 1 = not very well, 2 = a little less well, 3 = generally the same, 4 = very well b. 1 = never, 2 = rarely, 3=sometimes, 4=usually, 5=always c. 1 = daily, 2 = a few times a week, 3 = one/twice a month, 4 = once/twice a year, 5 = never d. 1 = daily, 2 = a few times a week, 3 = one/twice a month, 4 = once/twice a year, 5=never

Parental language attitudes and acculturation attitudes (assimilation, separation, marginalization, and integration)

A Pearson product-moment correlation was used to determine the relationship between parental language attitudes and acculturation attitudes (assimilation, separation, marginalization, and integration). Language attitudes were negatively correlated with marginalization, assimilation, and integration attitudes ($p < .05$). However, language attitudes were positively correlated with separation attitudes ($p < .05$). Table 2 shows the bivariate correlations of parental language attitudes and acculturation attitudes (integration, marginalization, separation, and assimilation).

Table 2
Bivariate correlations between relevant variables (N = 52)

	1	2	3	4
1 Parental Language Attitudes				
2 Assimilation	-.459**			
3 Separation	.587**	-.609**		
4 Marginalization	-.339*	.752**	-.571**	
5 Integration	-.440**	.673**	-.593**	.433**

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 3
Multiple Regression Analysis Summary for Factors Predicting Children’s Heritage Language Proficiency

Predictor(s)	B	Std Error of the Estimate	β	t	p
Language Attitudes	5.77	10.97	.09	.53	.601
Assimilation	-29.46	10.37	-.70	-2.84	.007
Separation	-9.11	6.29	-.29	-1.45	.154
Marginalization	2.45	9.10	.06	.27	.789
Integration	6.45	4.71	.26	1.37	.178

Note. $R^2 = .23$ ($N = 52, p < .05$).

Association between parental language attitudes and acculturation attitudes (assimilation, separation, marginalization, and integration) with children’s heritage language proficiency

A multiple linear regression analysis was conducted to predict children’s heritage language proficiency based on parental language attitudes and acculturation attitudes (assimilation, separation, marginalization, and integration). A residual analysis indicated that the multiple linear regression model's assumptions were met, and the results showed that the regression model was significant, $F(5, 46) =$

2.66, $p = .034$, with an R^2 of .23. In the model, assimilation attitudes were negatively associated with children’s heritage language proficiency ($\beta = -.70$, $p = .007$) (Table 3). However, none of the other predictors (separation attitude, integration attitude, and marginalization attitude) were significantly associated with children’s heritage language after controlling for the other variables ($p > .05$) (Table 4).

Table 4
Means, Standard Deviations, and Intercorrelations for Children’s Heritage Language Proficiency and Predictor Variables ($N = 52$)

Variable	M	SD	1	2	3	4	5
Children’s Heritage Language Proficiency	85.88	22.59	-.348**	.005	-.224*	-.055	.106
Predictor Variable							
1. Assimilation	1.66	.54	-	-.609***	.752***	-.055***	-.459***
2. Separation	3.84	.71		-	-.571***	-.593***	.587***
3. Marginalization	1.81	.52			-	.433***	-.339**
4. Integration	3.37	.91				-	-.440***
5. Language Attitudes	3.75	.34					-

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5
Multiple Regression Analysis Summary for Factors Predicting Children’s Heritage Language Proficiency ($N = 52$)

Predictor(s)	B	Std Error of the Estimate	β	t	p
Parental Age	-.82	.68	-.18	-1.20	.235
Parental Education	-1.80	2.52	-.10	-.72	.478
Household Income	2.44	2.76	.12	.89	.380
Child’s Age	-3.70	1.53	-.36	-2.42	.020
Length of Living in the U.S.	-.60	.52	-.17	-1.16	.253

Note. $R^2 = .32$ ($N = 52$, $p < .05$).

Due to correlations among the predictors in the multiple linear regression model, variance inflation factors (VIFs) were checked for possible impact on the standard errors of the regression parameters. The VIFs ranged from 1.59 to 3.60, an acceptable range (Hair et al., 2010). Stepwise regressions were also performed. The results of the stepwise regressions confirmed the results of the full model.

Association between parental demographic variables and length of living in the U.S. with children’s heritage language proficiency

A multiple linear regression analysis was conducted to predict children’s heritage language proficiency based on parental age, household income, parental education, child’s age, and length of living in the U.S. A residual analysis indicated that the multiple linear regression model's assumptions were met, and the results indicate that the regression model was found significant $F(5, 46) = 4.31, p = .003$, with an R^2 of .32. In the model, it was found that a child’s age was negatively associated with children’s heritage language proficiency ($\beta = -.36, p = .020$), meaning that older children were less proficient in Turkish than younger children (Table 5). However, none of the other predictors (parental age, household income, parental education, and length of living in the U.S) were significantly associated with children’s heritage language after controlling for the other variables ($p > .05$) (Table 6).

Table 6
Means, Standard Deviations, and Intercorrelations for Children’s Heritage Language Proficiency and Predictor Variables ($N = 52$)

Variable	M	SD	1	2	3	4	5
Children’s Heritage Language Proficiency	85.88	22.60	-.399**	-.205	-.047	-.505***	-.334*
Predictor Variable							
1. Parental Age	38.15	4.84	-	.380**	.167	.455***	.267*
2. Parental Education	3.13	1.21		-	.214	.167	.043
3. Household Income	3.83	1.08			-	.168	.326**
4. Child’s Age	8.23	2.18				-	.438***
5. Length of Living in the U.S.	14.10	6.17					-

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 7
Mean Scores on Four Acculturation Attitudes (assimilation, marginalization, separation, and integration) $N = 52$

(I) Degree of Acculturation Types	(J) Degree of Acculturation Types	Mean difference (I - J)	SE	95% Confidence Interval for difference	
				Lower bound	Upper bound
(1) Assimilation	(2)	-.154*	0.05	-.295	-.012
	(3)	-2.180*	0.16	-2.606	-1.754
	(4)	-1.709*	0.10	-1.968	-1.451
(2) Marginalization	(1)	0.154*	0.05	.012	.295
	(3)	-2.026*	0.15	-2.441	-1.611
	(4)	-1.555*	0.12	-1.872	-1.239
(3) Separation	(1)	2.180*	0.16	1.754	2.606
	(2)	2.026*	0.15	1.611	2.441
	(4)	0.471	.20	-.080	1.023
(4) Integration	(1)	1.709*	0.10	1.451	1.968
	(2)	1.555*	0.12	1.239	1.872
	(3)	-.471	0.20	-1.023	.080

Note: Based on estimated marginal means

*The mean difference is significant at the .05 level

Due to correlations among the predictors in the multiple linear regression model, variance inflation factors (VIFs) were checked for possible impact on the standard errors of the regression parameters. The VIFs ranged from 1.45 to 1.37, an acceptable range (Hair et al., 2010). The stepwise regressions were also performed, and the results of the stepwise regressions confirmed the results of the full model.

The types of acculturation attitudes (assimilation, marginalization, separation, or integration) Turkish-speaking parents engage in the most in the U.S.

A repeated-measures ANOVA was conducted to investigate differences in acculturation attitudes immigrant parents engage in the most in the U.S. Mauchly's Test of Sphericity indicated a violation of sphericity, $\chi^2(5) = 94.11$, $p < .001$, and therefore, a Greenhouse-Geisser correction was used. The difference between the means of assimilation, marginalization, separation, and integration was statistically significant, $F(3, 153) = 128.85$, $p < .001$. The results of Bonferroni-corrected multiple paired t-tests (Table 7) indicated that separation attitudes ($M = 3.84$, $SD = 0.71$) and integration ($M = 3.37$, $SD = 0.91$) were reported higher than marginalization ($M = 1.81$, $SD = 0.52$), and assimilation ($M = 1.66$, $SD = 0.54$).

Association between language environment, child's expressive in Turkish orally (i.e., pronunciation, finding the right word, etc.) with children's heritage language proficiency

A multiple linear regression analysis was conducted to predict children's heritage language proficiency based on child's Turkish expression, Turkish language used at home with siblings, the number of native speaker friends in the family's social environment, the amount of reading books in Turkish, and the amount of watching videos, movies, TV in Turkish. A residual analysis indicated that the multiple linear regression model's assumptions were met, and the results indicate that the regression model was found significant $F(5, 40) = 10.101$, $p < .001$, with a R^2 of .56. The model found that a child's expression of him/herself orally in Turkish was positively associated with children's heritage language proficiency ($\beta = .59$, $p < .000$). Turkish language used at home with siblings was positively associated with children's heritage language proficiency ($\beta = .34$, $p = .007$) (Table 8). Moreover, none of the other predictors (the number of native speaker friends in the family's social environment, the amount of reading books in Turkish, and the amount of watching videos, movies, TV in Turkish) were significantly associated with children's heritage language ($p > .05$). (Table 9).

Due to correlations among the predictors in the multiple linear regression model, variance inflation factors (VIFs) were checked for possible impact on the standard errors of the regression parameters. The VIFs ranged from 1.27 to 1.95, an acceptable range (Hair et al., 2010). In addition, stepwise regressions were also

performed, and the results of the stepwise regressions confirmed the results of the full model.

Table 8
Multiple Regression Summary for Factors Predicting Children’s Heritage Language Proficiency (N = 52)

Predictor(s)	B	Std Error of the Estimate	β	t	p
Child’s Exp in Turkish	15.31	3.16	.59	4.84	.000
Turkish Lang Used with Siblings	6.29	2.21	.34	2.85	.007
The number of Turkish speaker friends	-3.76	3.65	-.13	-1.03	.310
The amount of reading in T	1.05	1.94	.08	.54	.591
The amount of watching in T	3.04	2.62	.17	1.17	.251

Table 9
Means, Standard Deviations, and Intercorrelations for Children’s Heritage Language Proficiency and Predictor Variables (N = 52)

Variable	M	SD	1	2	3	4	5
Children’s Heritage Language Proficiency	85.88	22.59	.618**	.493	-.284*	-.209	.037
Predictor Variable							
1. Child’s Exp in Turkish	3.28	.89	-	.201	-.378**	-.447***	-.332**
2. Turkish Lang Used with Siblings	3.78	1.23		-	-.111	-.171	.214
3. The number of Turkish speaker friends	2.52	.78			-	.484***	.405**
4. The amount of reading in T	3.07	1.73				-	.574***
5. The amount of watching in T	2.59	1.26					-

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

DISCUSSION

Research within the U.S. on linguistically and culturally diverse immigrant families has predominantly focused on Latino and Asian groups (Kalia et al., 2017; Place & Hoff, 2013; Su & Hynie, 2011). Notably, Isik-Ercan (2014) highlights a gap concerning other immigrant demographics. This study pioneers in exploring the relationship between parental acculturation, language attitudes, and HL proficiency of Turkish bilingual children in the U.S. (Berry, 1993; Makarova et al., 2017; Troesch et al., 2020).

The findings of this research reveal that Turkish immigrant parents who maintain a distinct cultural identity from the mainstream U.S. society tend to exhibit more positive attitudes towards their native language. This is evidenced by a negative correlation between positive language attitudes and the acculturation strategies of

marginalization, assimilation, and integration, but a positive correlation with separation attitudes. This outcome diverges from Berry's (1993, 2003) acculturation framework, which posits that integration fosters favorable acculturation outcomes. However, echoing Bhati and Ram (2001), the study suggests that integration might not universally serve the best interest of all immigrant groups due to varying socio-political contexts influencing their experiences in the host country.

In the spectrum of acculturation attitudes, only a separation stance was associated with favorable parental perspectives on HL preservation. This observation is in harmony with the insights of Park (2013) and Place and Hoff (2011), who noted that Turkish immigrant parents with separation attitudes tend to foster a "supportive home environment," thereby enhancing their offspring's proficiency in Turkish (Park & Sarkar, 2007). Such an environment often entails the organization of home literacy initiatives, participation in cultural gatherings, social visits within the Turkish community in various states, engagement with Turkish media, and trips to visit kin and acquaintances in their native lands. From the lens of Vygotsky's sociocultural theory (Vygotsky, 1978), an inclination towards separation may cultivate an optimal setting for the cultural immersion essential for sustaining the HL. An emphasis on home language settings that encourage interaction with a broader circle of native speakers can wield a constructive impact on children's mastery of HL. The outcomes of this investigation find resonance with the findings of Bhati and Ram (2001), which assert that the interplay of parental language and acculturation attitudes is a significant predictor of children's HL competency.

Vygotsky's sociocultural theory offers a valuable framework for understanding the outcomes of HL maintenance within immigrant families. This theory highlights the significance of social interactions, cultural context, and historical factors in shaping cognitive development and learning processes (Hughes, 2021). In the context of HL maintenance, Vygotsky's theory suggests that the social environment, including family dynamics and community support, significantly influences language acquisition and retention (Li, 2023; Makgabo & Niipare, 2022). When examining attitudes towards separation in acculturation theory, Vygotsky's sociocultural theory can illuminate how individuals navigate the balance between preserving their HL and adopting the language of the dominant culture. The theory underscores the importance of social interactions and cultural practices in shaping individuals' attitudes and behaviors (Negussie & Slater, 2018; Olds et al., 2021). Immigrant families may experience tensions between maintaining their HL, which is linked to their cultural identity, and adopting the language of the host society for social integration (Makgabo & Niipare, 2022; Olds et al., 2021).

Contrary to Berry's (1997) model, this study found that parents with less inclination towards assimilation had children with higher HL proficiency. Such parents may experience greater satisfaction and comfort in raising bilingual

children within the U.S., possibly due to reduced assimilation into the dominant culture. Maintaining effective HL communication appears to facilitate their integration into U.S. society. Bhati and Ram (2001) argue that socio-political contexts and group dynamics can influence the outcomes of acculturation attitudes. Furthermore, the extent of parents' acculturation experiences may influence their attitudes towards fostering bilingualism in their children (Nagy, 2017). These acculturation attitudes, in turn, shape their language preferences, encouraging a familial environment enriched with HL resources.

Concerning the impact of demographic variables like parental age and the linguistic environment on children's proficiency in Turkish, our findings indicate an inverse relationship between age and HL proficiency, aligning with Johnson and Newport's (1989, 1991) and Hoff's (2013) observations on the diminishing HL proficiency with age. This decline is likely due to increased exposure to the dominant language, leading older children in Turkish-speaking families to predominantly use English, especially in interactions outside the home. In contrast, younger children benefit from substantial exposure to their HL within the family setting.

Hakuta et al. (2003) offer a comprehensive account of how initial exposure, age, and the socio-linguistic backdrop of immigrant communities shape language acquisition, highlighting the nuanced interplay of these elements in HL development. While this study does not pinpoint specific skills crucial for bilingual language switching, it acknowledges the significant influence of external factors such as educational settings and a supportive environment on HL proficiency (Halsted, 2015).

Further, Ribot and Hoff (2014) observed that bilingual children often exhibit stronger receptive than expressive vocabulary abilities, attributing this disparity to limited exposure to each language. This finding challenges the simplistic dichotomy of bilingualism into expressive and receptive domains. In a related vein, Hashimoto and Lee (2011) delve into Japanese immigrant parents' perceptions of bilingualism, revealing a belief that true bilingualism entails biliteracy, or mastery over the linguistic intricacies of both languages (Hashimoto & Lee, 2011, p. 176). Contrasting these views, Gharib and Seal (2019) investigated Iranian parents' perspectives on their children's bilingual capabilities, noting a tendency to equate receptive language skills with bilingualism. Their work underscores the significant divergence between conversational fluency and literacy in the context of HL speakers, pointing to the multifaceted nature of bilingual proficiency.

This study suggests that while Turkish parents perceive their children as bilingual and involved in family conversations, literacy development and active language production demand additional effort from the children. This might explain the lower scores on expressive vocabulary tests observed among the children, despite being identified as bilingual by their parents. This discrepancy could be due to

diverse definitions and levels of proficiency among bilingual individuals (Halsted, 2013; Halsted, 2015). However, lower scores in expressive Turkish vocabulary do not necessarily negate the children's bilingualism. According to parental reports, these children are bilingual and capable of effective communication with their parents in their heritage language, a prerequisite for participation in this study.

Furthermore, this study explored the influence of the language environment and children's ability to express themselves in Turkish on their HL proficiency. The findings indicated a positive association between children's Turkish expression and the use of Turkish at home with siblings, and their HL development. This correlation might stem from the number of HL speakers in bilingual households enhancing children's HL proficiency (Place & Hoff, 2011), enabling better self-expression in HL. Bridge and Hoff (2014) highlighted the significant role of older siblings in the bilingual development of younger siblings, particularly noting the variance in HL proficiency between school-aged children and those not attending school. Their research suggested that sibling interactions in English predominate when they attend English-speaking schools, whereas non-school-aged siblings engage more in the HL, facilitating bilingual development (Bridge & Hoff, 2014). These findings align with previous research, such as Zukow-Goldring (2002), which posited that siblings act as a source of language exposure for young bilingual children in some immigrant families. Contrarily, Hoff-Ginsberg and Krueger (1991) argued that siblings play a less significant role in the development of young children's HL proficiency compared to adults.

Contrary to expectations, this investigation found no significant correlation between the presence of native speaker friends, engagement with Turkish literature, or consumption of Turkish media, and the development of heritage language skills among children. This absence of association might stem from various familial constraints, such as limited opportunities to engage with Turkish language content or a lack of a supportive Turkish community in their vicinity (Nesteruk, 2010). Additionally, a lack of intrinsic motivation among the children to enhance their Turkish proficiency through external resources could further explain this finding (Halsted, 2013). It is also conceivable that the study lacked sufficient statistical power to identify the expected relationships.

CONCLUSION

This study illuminates the contextual factors influencing children's bilingual experiences, particularly in HL proficiency, while acknowledging certain limitations. A notable limitation is the lack of demographic diversity within our sample, which predominantly consists of individuals with higher educational backgrounds. This skew may reflect historical migration patterns, as the earliest Turkish immigrants to the U.S. were primarily motivated by educational opportunities (Balgamis & Karpat, 2008). Consequently, Turkish immigrants in the U.S. generally exhibit higher educational and economic levels compared to

their counterparts in Germany and Australia (Helicke, 2002; Isik-Ercan, 2014; U.S. Census Bureau, 2011) Expanding future research to include a broader demographic spectrum of Turkish families in the U.S. could provide a more comprehensive understanding of the bilingual experiences of immigrant children. Additionally, the current insights into dual-language development are confined to children aged 5-11, a group with distinct cognitive and emotional attributes. Exploring other age groups, particularly adolescents, could offer valuable perspectives on how parental language attitudes and acculturation might influence dual-language development during critical periods of identity formation and cognitive change (Nisanci, 2020).

Furthermore, the assessment of HL proficiency among Turkish immigrant children could benefit from more diverse methodologies. The reliance on a standardized Turkish expressive vocabulary task, not tailored for bilingual individuals, may not accurately reflect the language skills of bilingual Turkish children in the U.S. These children often differ linguistically from their monolingual peers in Turkey, particularly in their grasp of fundamental Turkish language structures like word order and subordination. To circumvent potential inaccuracies in evaluating bilingual children's language abilities with monolingual benchmarks, adopting bilingual norm-based assessments, such as standardized receptive vocabulary tests or qualitative analyses of parent-child interactions, could provide deeper insights into the bilingual developmental process.

Limitations, Implications, and Suggestions for Future Research

The implications of this study advocate for the initiation of early bilingualism programs targeted at immigrant families. These programs should focus on equipping parents with the necessary skills to foster their children's HL development by modulating their acculturation attitudes and language practices (De Houwer, 2015). Moreover, such interventions could provide immigrant families with actionable strategies for nurturing a balanced bilingual environment, thereby encouraging children to retain their HL alongside the majority language in the U.S. The integration of more bilingual education models in public schools could facilitate a smoother cultural and linguistic transition for immigrant children, fostering inclusivity with their American peers. This study's outcomes align with prior research indicating the critical role of first-language support within the home and community for maintaining proficiency in the HL among immigrant children (Lee et al., 2015). It is observed that immigrant parents with a strong inclination towards their HL often delay their children's entry into formal education, preferring to instill foundational values and language skills at home (Troesche et al., 2010). However, upon entering kindergarten, these children quickly adapt to the majority language (Hoff, 2013). This highlights the potential for leveraging early educational settings to support bilingual development. The persistent demand for extensive backing for immigrant families highlight the significance of bilingualism within the American framework, advocating for systemic enhancements to support international students' linguistic and cultural

integration in the context of enhancing the academic and social integration of international students in the USA.

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□ Some sections, with minimal or no editing

This article incorporates content generated by Artificial Intelligence (AI) tools. The sections where AI tools were employed are English grammar editing. The use of AI tools complied with ethical standards and guidelines for academic integrity. The final content has been thoroughly reviewed and edited to ensure accuracy, relevance, and adherence to academic standards. We also received Humane Letters Grants for this publication.

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