

City University of New York (CUNY)

CUNY Academic Works

Dissertations, Theses, and Capstone Projects

CUNY Graduate Center

9-2015

Tales Of Language Loss And Language Maintenance: Elicited Ancestral Language Use In Lazuri-Turkish And Turkish-German Caregiver-Child Dyads During Structured Play

Peri Ozlem Yuksel-Sokmen
Graduate Center, City University of New York

[How does access to this work benefit you? Let us know!](#)

More information about this work at: https://academicworks.cuny.edu/gc_etds/1197

Discover additional works at: <https://academicworks.cuny.edu>

This work is made publicly available by the City University of New York (CUNY).
Contact: AcademicWorks@cuny.edu

**TALES OF LANGUAGE LOSS AND LANGUAGE MAINTENANCE:
ELICITED ANCESTRAL LANGUAGE USE IN LAZURI-TURKISH AND
TURKISH-GERMAN CAREGIVER-CHILD DYADS DURING STRUCTURED PLAY**

By

Peri Ozlem Yuksel-Sokmen

A dissertation submitted to the Graduate Faculty in Psychology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York

2015

© 2015

PERI OZLEM YUKSEL-SOKMEN

All Rights Reserved

This manuscript has been read and accepted for the Graduate Faculty in Psychology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

Patricia J. Brooks, Ph.D.

Date

Chair of Examining Committee

Joshua C. Brumberg, Ph.D.

Date

Executive Officer

Juliette Blevins, Ph.D.

Colette Daiute, Ph.D.

Kristen Gillespie-Lynch, Ph.D.

Lana Karasik, Ph.D.

Supervisory Committee

ABSTRACT

TALES OF LANGUAGE LOSS AND LANGUAGE MAINTENANCE: ELICITED ANCESTRAL LANGUAGE USE IN LAZURI-TURKISH AND TURKISH-GERMAN CAREGIVER-CHILD DYADS DURING STRUCTURED PLAY

By

Peri Ozlem Yuksel-Sokmen

Advisor: Dr. Patricia J. Brooks

In language contact situations parents who grew up acquiring their ancestral language (AL) often have to make choices about the fate of AL transmission by negotiating resources and beliefs about what is best for their children's future. Their language practices contribute to AL loss or maintenance, affecting developmental pathways for bilingualism. The situation faced by speakers of Lazuri—a Grade 2, severely endangered South Caucasian language that is no longer used in child-directed speech illustrates a global phenomenon of rapid language loss within indigenous communities due to linguistic assimilation to a dominant language (DL). AL loss is associated with parental language socialization goals (e.g., to prepare children for formal education in the DL), as well as socio-economic and historical factors. Study 1 examined AL production in Lazuri-Turkish caregiver-child dyads ($N=62$, M child age=30.0 months, $SD=9.4$, range 12-48 months) as a function of caregiver generation (i.e., comparing 30 grandparent-child vs. 32 parent-child dyads). Dyads were recruited from Lazona communities in Fındıklı and Ardaşen, Turkey. Study 2 compared a subset of the parent-child dyads from Study 1 with age-matched Turkish-German parent-child dyads ($N=12$, M child age=29 mo, range 16-46) recruited from the Kreuzberg community of Berlin. The Berlin families tend to maintain usage of AL (i.e., Turkish) in child-directed speech, and served as a base of comparison with the Lazuri communities where the DL has replaced the AL in communication with children. All parents completed a short demographic and language use questionnaire. Across studies, dyads were

instructed to converse in their AL (i.e., Lazuri in Lazona, Turkish in Berlin) while engaging with animal farm and tea-party toy sets (10 min each). The elicitation task thus provided an assessment of caregiver language fluency in the AL as well as a semi-structured context for examining cultural variation in caregiver-child communication.

Utterances were transcribed and coded for language use (i.e., AL, DL, Mixed) and type (i.e., labeling, questioning, commanding, deictic expression, comment, invitation). Deictic gestures (i.e., pointing, showing, offering, requesting) were also coded. In Study 1, the elicitation task indicated AL loss with grandparents and parents interacting similarly with children: Caregivers spoke Lazuri in only 58.5%, while the remainder of the child-directed speech was in Turkish (26.0%) or mixed languages (15.4%). In contrast, children lacked Lazuri fluency and predominantly spoke Turkish (82.8%) with fewer Lazuri (14.8%) or mixed utterances (2.4%): 79.8% of children's Lazuri utterances were imitative, as opposed to spontaneous speech (21.2%). Caregivers combined Lazuri utterances with deictic gestures more often than Turkish utterances to establish a common ground for effective communication. Reflecting parental language practices in AL usage in Study 2, Berlin dyads conversed fluently in AL. Functional coding of utterances showed cultural variation in child-directed speech: Lazuri parents produced more commands whereas Berlin parents used more questions to engage their children. Despite variation in parental speech, children's communication was remarkably alike, yet mediated by the activity context. The findings extend the bilingual literature by including understudied language enclaves and corroborate how practices and beliefs about what to teach and how to talk to children contribute to AL loss or maintenance. Benefits and ways of maintaining AL in socioeconomically disadvantaged contexts are discussed.

Keywords: bilingualism, caregiver-child interaction, language enclave, language loss, language maintenance, Lazuri, Turkish, language preservation

ACKNOWLEDGEMENTS

I am grateful for all the children and their caregivers for their willingness to share their time and imagination with me. I will be forever thankful to Dr. Patricia Brooks, my American *Doktormutter*, who has inspired this project and always provided indispensable support throughout and beyond my scholarship. I truly appreciate my research assistants, Aynur Fırıncı, Osman Ustabaş, Ayla Ustabaş, and Kamile Türksoy for helping me with the recruitment and Georgiy Lyzhin and Selma Kurtoğlu for their generous time they put into coding and reliability. I also want to extend my gratitude to Irfan Cağatay for helping me transcribe an oral language and my dear graduate friend Dr. Naomi J. Aldrich for all her peer-mentoring throughout my PhD program. In addition, I would like to thank Dr. Colette Daiute for her early mentoring in the program and encouraging words that have fueled me with prospects and motivation. I also want to thank my beloved parents for giving me the gift of life and guiding me spiritually throughout the entire journey. Thank you for your love and trust. Thanks to my siblings Saniye, Efkan, Neşe, and Yelda who have always believed in me and taught me to grow with their children, Ercan, Ceyhun, Sercan, Şahcihan, Cengizhan, Emel, Alpay, and Erdem . I also wish to thank Cemil and Ayhan Sökmen for their prayers and encouraging words. Thank you to my darling Muli who has brought so much joy and happiness to moments of despair. I want to thank my husband Murat for his love and support through the bad and the ugly. Thank you for always seeing the good, your patience and for being the biggest rock in my journey.

Lastly, I would like to thank all anonymous reviewers and my generous funders: *College of Staten Island* for the Research Fellowship, *The Graduate Center* for the Doctoral Student Research Grant, the *Journal of Language Learning* for the Doctoral Dissertation Grant, and *The Endangered Language Fund* for recognizing and awarding my work with the *Isenberg Award*.

TABLE OF CONTENTS

Page	
Abstract.....	iv
Acknowledgements.....	vi
List of Tables	xi
List of Images	xii
Chapter	
1. Introduction.....	1
Problem Statement.....	1
Benefits of Maintenance AL.....	3
Background on AL Loss and Maintenance.....	4
Brief Historical Background on Language Samples.....	7
Definition of Terms.....	10
Organization of the Study	11
2. Background of Lazuri Context.....	13
Background on Initial Recruitment	14
Causes of Language Loss	19
3. Review of Related Literature	21
Contextual Framework.....	21
Dual Language Development	24
Role of Grandparents	25
Early Communication	26
The Role of Context in Communication.....	28

4. Research Goals and Rationale	30
Research Questions	32
5. Study 1	34
Grandparent-child and Parent-child Interaction in Lazona.....	34
Method	35
Participants.....	35
Procedure	36
Coding.....	36
Results.....	40
Data Transformation and Analysis Plan	40
Comparison of Lazuri Usage across Generations	41
Imitative Use of Lazuri	46
The Role of Gesture in Facilitating AL Comprehension	48
6. Summary and Discussion of Study 1	52
Question 1	52
Question 2	54
Question 3	55
7. Study 2	58
Indigenous Lazuri Enclave vs. Immigrant Turkish Enclave.....	58
Method	59
Participant	59
Procedure	60
Coding.....	61

Results.....	61
Elicited Ancestral Language Use.....	61
Role of Culture and Context for Early Communication.....	64
8. Summary and Discussion of Study 2.....	71
Question 4.....	72
Question 5.....	73
9. General Discussion and Implications.....	77
AL Loss versus AL Maintenance in Contact Situations.....	77
Implications for Ancestral Language Maintenance.....	79
Limitation and Direction for Future Research.....	81
Future Directions in Preserving Endangered Languages.....	82
Conclusion.....	85
Appendix	
A. Parental Questionnaire on Language Development in Children.....	87
B. Lazuri Child Stories.....	88
References.....	89

LIST OF TABLES

Table	Page
1. Fishman’s Graded Intergenerational Disruption Scale.....	23
2. Age Breakdown in Lazona (Study 1).....	35
3. Categories of Deictic Gestures.....	38
4. Elicited ted Language Usage in Lazona.....	41
5. Persistence of AL Input in Lazona.....	44
6. Elicited Speech-Gesture Combination in Lazona.....	49
7. Sample Characteristics of Study 2.....	60
8. Categories of Utterance Types.....	61
9. Elicited AL Use across Locations of Study 2.....	63
10. Percentage of Utterance Types of Study 2.....	63

LIST OF IMAGES

Image	Page
1. Indigenous Lazuri Enclaves in Turkey	7
2. Languages of the Caucasus	8
3. Lazuri Dialects in Lazona	14
4. Overhearing Intergenerational Communication in a Lazuri Village	15
5. Peer-interaction in a Lazuri Village	17
6. Examples of Pointing Gestures in Lazona	39
7. Examples of Transfer-initiating Gesture in Lazona	39

CHAPTER 1

Introduction

Problem Statement

Over half of the world's children are exposed to more than one language in family, school, and broader community contexts, yet they vary in the extent to which they develop fluency and proficiency in each of their languages. To date, the bulk of studies on dual language development involve children from immigrant families in western urban settings, paying little attention to the unique language environment of young children acquiring an ancestral language (AL) in the context of language endangerment and loss. The loss of AL in immigrant children in the US and Germany has been well documented by researchers (e.g., Fillmore, 1991; 2000; Pfaff, 1993): Children often lose their AL by the time they enter school and become subtractive bilinguals: They develop greater fluency and preference to use the language of the school, i.e., the dominant language (DL), for various reasons including greater exposure to diverse vocabulary as well as access to literacy materials in the DL, parent and teacher beliefs about the value of bilingualism for child development, the status of different languages in the community, family and peer pressure for children to assimilate to the dominant culture, and individual preferences. Despite these obstacles, with the support of a community of speakers, immigrant families may decide to maintain their AL at home. Access to literacy materials helps many immigrant families to support their children in maintaining their AL; this is made easier if the AL is recognized at an institutional level (e.g., government, schools) in the homeland of the parents or grandparents.

In contrast to immigrant children, children growing-up in endangered oral language communities are dependent on the input of the AL at home. Many indigenous languages do not have an official status (i.e., governments may fail to recognize an AL at an institutional level),

lack a standardized writing system, literacy materials, and other instructional resources to support AL teaching in school settings. Language socialization goals, such as parental interests in preparing their children for formal education in the DL, as well as socio-economic and historical factors often make it difficult for children born into indigenous communities to acquire fluency in the AL. Caregiver-child interactions in such communities might broaden our understanding of how sociocultural factors expressed in language practices contribute to AL loss or maintenance. Decisions about how to talk to children is a crucial factor in the maintenance of an AL, yet language practices in bilingual families have been tested mostly through self-reports and naturalistic observations focused more on how children differentiate languages (e.g., Nicoladis & Genesee, 1996; De Houwer, 2007) than on examining the communicative behaviors of caregiver-child dyads when encouraged to interact in the AL. Maintenance of an AL requires reinforcement of the endangered language by encouraging its speakers to use the AL at home with their children (Eisenbeiss, 2006; King & Fogle, 2006; King, Fogle & Logan-Terry, 2008).

For this study, I developed an elicitation task to encourage AL interaction and provide a measure for oral language proficiency in the AL in caregiver-child dyads during semi-structured social routines, i.e., play with culturally relevant toys. Play is a universal behavior and frequently employed as a framework to study early social interactions across cultures and contexts (e.g., Göncü & Gaskins, 2007; Hall, Rumney, Holler, & Kidd, 2013; Height, 1999). I used the elicitation task to obtain samples of caregiver-child communication in two distinct bilingual settlements (i.e., Lazuri-Turkish, Turkish-German), aka enclaves— a concentrated geographical area inhabiting groups of people similar in ethnicity and language (e.g., Bauer, Epstein, & Gang, 2005)—to shed light on interactional patterns that lead to the maintenance versus loss of an AL. Specifically, the situation of the Lazuri-Turkish families in the indigenous enclave illustrates a

global phenomenon of language loss whereas the Turkish-German families in the immigrant enclave provides a basis for comparison where the AL is maintained through communicative practices at home.

Indigenous oral languages are most often studied by linguists and anthropologists focused on documenting spoken language usage in adult AL speakers (Himmelman, 1998). A handful of studies have focused on children's acquisition of an AL; these include studies of Mayan languages (e.g., Brown, 1998; Shneidman & Goldin-Meadow, 2012; Pye, 1986) and Aboriginal Australian languages (e.g., Meakins & Wigglesworth, 2014; Simpson, 2015). Lazuri is a Graded 2, severely endangered South Caucasian language no longer being used in child-directed speech (UNESCO, 2013). Early as well as recent significant and vital research focused primarily on the linguistic features of Lazuri (e.g., Anderson, 1978; Imer, 1997; Lacroix, 2010; Kutscher, 2008; 2010) and relied on Lazuri speakers' narration of folktales, oral stories, or songs (Dumezil, 1937; Kutscher & Genç, 1998; Kojima, 2003). Presently, no data on child-directed speech or on children's acquisition of Lazuri exist. Such data would inform theories of language development where the acquisition of an AL is uncertain and thus provide information for endangered language preservation and maintenance efforts. Loss of an AL means also loss of significant cultural practices, such as the transmission of knowledge of undocumented plants and animals, as well as oral traditions of storytelling—all of which are important social activities for the wellbeing and identity of indigenous communities (Fishman, 1977; 1991; Harrison, 2007; Nettle & Romaine, 2002; UNESCO, 2003).

Benefits of Maintaining AL

Maintaining AL at home has been associated with positive developmental outcomes and long regarded as an important aspect of ethnic identification and participation in communal

activities (e.g., Fishman, 1977; Phinney, 1990). Higher levels of AL proficiency in English-speaking adolescents with Eastern Caucasian, Latino, or Asian background and in Dutch-speaking youth with Turkish background predicted positive ethnic identity (Phinney, Romero, Nava, & Huang, 2001; Vedder & Virta, 2005). AL maintenance at home was also associated with close family relationships (Oh & Fulugni, 2009). Continuous support in AL and DL also show beneficial outcomes in social and cognitive skills (e.g., Bialystok, Martin, & Viswanathan, 2005; Blom, Kuntay, Messer, & Verhagen, 2014; Brito, Grenell, & Barr, 2014; Carlson & Meltzoff, 2008; De Houwer, Bornstein, & Putnick, 2013; Genesee, Trucker, & Lambert, 1975; McCabe et al., 2013). Studies also report that children aged 8-15 years of age with limited AL proficiency felt disconnected with their ethnic community and more often evaluated bicultural experiences as negative events than compared to children who maintained AL at home (Imbens-Bailey, 1998).

Background on AL Loss and Maintenance

Young children are equipped to process multiple language inputs. Their language environments stimulate the growth of cognitive capacities for language comprehension and fluency, and the development of dual language skill (Kuhl, 2004; Kuhl, Tsao, & Lui; 2003; Pettito et al., 2001). In language contact situations, parents who grew-up acquiring their AL often have to make choices about the fate of AL by negotiating resources and beliefs on what is best for their children's academic and professional future. Their language practices either contribute to AL loss or maintenance depending on the status and prestige of each language (e.g., Hornberger, 1998, Tse, 2001). When children exclusively adopt usage of the DL due to lack of AL support at home, societal stigma in using the AL, and/or pressures towards linguistic assimilation, chances of dual language development diminish leaving children deprived of

important AL skills to meaningfully connect with their ancestral culture and community. Ethical concerns arise when children are pressured to avoid using the AL because children are deprived of the cognitive benefits associated with bilingualism—a desirable skill in the current era of global economies (e.g., Adesope, Lavin, Thompson, & Ungerleider, 2010; Garcia, 2008).

The Aboriginal Child Language Acquisition Project (ACLAP) (Simpson, 2015) reports that since 1996 the languages of various Aboriginal groups have been rapidly changing and experiencing language loss, while very few communities, such as Warlpiri, have maintained their AL in child-directed speech. In other communities (i.e., Warumungu, Walmajarri, and Gurindji), children are exposed to a mixture of an Aboriginal language and English, resulting in their use of a creole rather than Standard English. Simpson (2015) attributes the extent of language preference for English to several interacting factors, such as number of indigenous speakers (e.g., Walpiri has 2,500 speakers vs. Warumungu, with less than 500 speakers), peer influence, and the impact of governmental policy to push Aboriginals out of remote areas into towns on the basis of family failures to enforce school attendance, high levels of unemployment, and violence. When problem solvers interfere from the outside and force indigenous groups into towns, traditional activities, such as gathering and hunting in the bush will be lost and exceptional knowledge about plant and habitat life will be diminished.

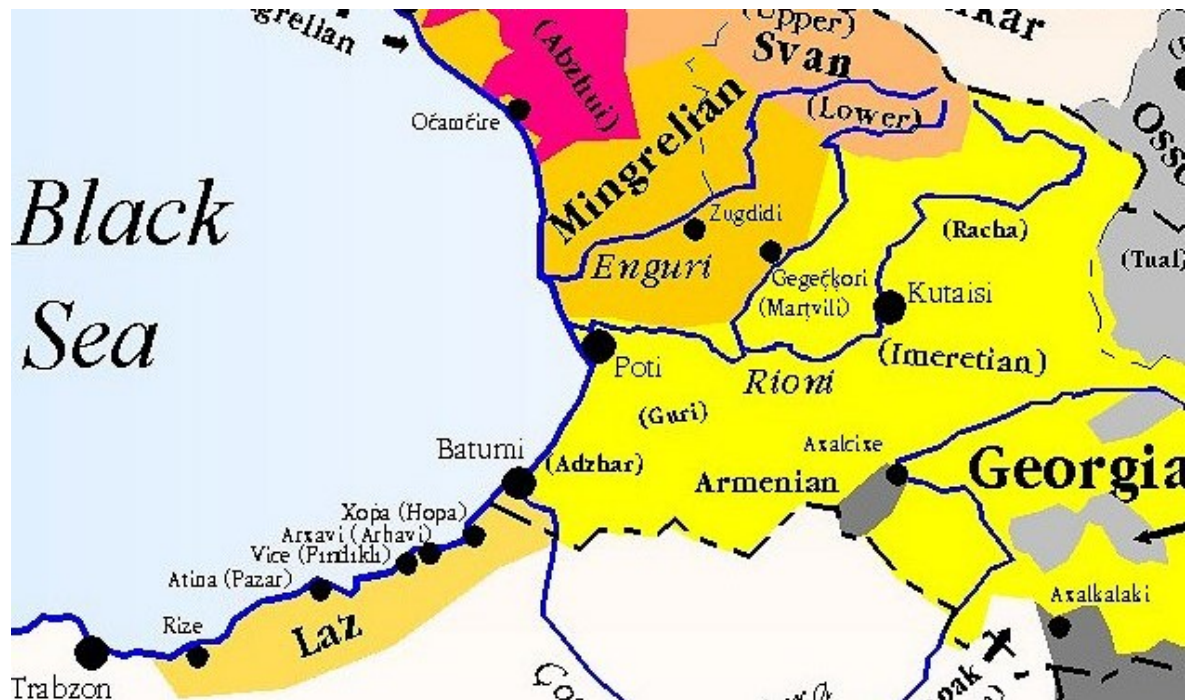
The ACLAP study makes an important contribution to our understanding of environmental factors that affect the development of AL in preschoolers, such as communal support for early AL maintenance. Further, the ACLAP shows that language loss varies from community to community. In some communities children are still acquiring AL, while in other communities AL loss is happening at an alarming rate. Little is known about AL learning outcomes for children who grow-up overhearing an endangered language, but do not speak it

with their family members. Previous studies in the context of language endangerment (Meakins & Wigglesworth, 2012) focused on passive knowledge of a Graded 2 Aboriginal AL and examined comprehension skills using a picture-matching task. While children between the ages of 4 and 8 years of age were able to pick out, on average, 6 out of 10 trials, children between the ages of 9 and 15 years responded correctly on 7-8 out of 10 trials (Meakins & Wigglesworth, 2012). These results highlight that even when the AL is severely endangered, children may develop considerable comprehension skills (passive knowledge) in the absence of fluency in speaking the AL.

In order to facilitate future language intervention studies, it is important to assess the language fluency of endangered language speakers when speaking to children and to encourage the usage of the AL at a time when it is crucial for language acquisition, namely prior to their children's entry into school where they are likely to shift to the use of the DL. Due to the lack of resources and testing tools, I developed an elicitation task to prompt usage of Lazuri in 62 caregiver-child dyads. In addition to assessing the extent to which speakers could converse fluently in Lazuri, I also measured the lengths of bouts of AL production in caregivers to measure generational differences in child-directed speech between the grandparent and parent generations. In addition to the language fluency aspect, the elicitation task also allowed me to study the role of deictic gestures in facilitating comprehension, especially for conversations involving an AL that is not often used in daily social activities with children. Finally, the use of a structured elicitation task provided a window into how caregivers teach an endangered language to their children when they are prompted to use the AL and how contextual factors, such as child age, activity context, and culture contribute to the language outcomes of young children in distinct language communities.

Brief Historical Background on Language Samples

Image 1. *Indigenous Lazuri enclaves in Turkey* (Metzler Lexikon Sprache, 1993, p. 299)



Lazuri, aka Laz, is predominantly spoken in indigenous settlements in the provinces of Rize and Artvin and parts of bordering Georgia in Batumi at the Caucasus region (see Image 1). Compared to its sister language Georgian, Lazuri is a much less known South Caucasian language—a language family that further includes Mingrelian, and Svan, two severely endangered languages with low status that are spoken in Georgia. Next to the South Caucasian language the Caucasian mountains inhabit two more Caucasian languages, neither one related to each other: the Northeast Caucasian (incl. Lezgian, Chechen, Dagestan, Ingush), and the Northwest Caucasian (incl. Abkhaz, Circassian, Kabardian, Ubykh— and extinct language once spoken in Turkey). Image 2 below demonstrates the region of the Caucasian languages stretched out between the Black Sea and the Caspian Sea.

Image 2. *Languages of the Caucasus* (Metzler Lexikon Sprache, 1993, p. 299)



The Caucasus is one of the world’s richest ethnolinguistic regions in concentration with indigenous languages that are estimated to have been spoken for more than 4,000 years (Catford, 1976). Hence, Laz people are indigenous speakers of modern time Turkey, while Turkish (an Altaic language) was imported in the process of political campaigns throughout human history. Turkish had a great impact on languages along the Black Sea of the southern part of the Caucasus when it first entered Rize in 1461 through the Seize of Trebizond by Sultan Mehmet II (Brendemoen, 2006) and was reinforced in its usage during the Turkish Language Reform, which lasted more than half a century (1928-1980) (cf., Lewis, 1999). In contrast to Lazuri, Turkish has an official status not only in Turkey, but in several Eastern European and Middle

Eastern countries, such as Greece, Cyprus, Romania, Kosovo, or Iran and is regulated by the *Türk Dil Kurumu – TDK*, the Turkish Language Association.

Turkish has also entered parts of Western Europe, especially since the influx of immigration to Germany in the 1960ies from labor migrants coming mostly from rural and underdeveloped areas of Turkey. A widely recognized Turkish language enclave is found in Kreuzberg, which has been nicknamed since 1960s as “Little Istanbul” or the “Turkish Ghetto” because immigrants from Turkey have often started their new life in this densely populated district of (West) Berlin (cf., Mandel, 1996). Today families with Turkish background are the largest ethnic minority group comprising approximately 6% of the urban population in Berlin (Statistischer Bericht, 2013). In one language study, Pfaff (1993) reported that 90% of Turkish families living in Kreuzberg maintained AL at home. Among childbearing Turkish immigrants, it is a common practice to marry a spouse from the ancestral country to maintain their cultural heritage (Gonzalez-Ferrer, 2006; Yüksel, 1995). This practice might also contribute to AL support at home in order to communicate with a parent that has newly come from Turkey or never learned the German language for various reasons. Parents living in immigrant enclaves might be also more interested in AL maintenance due to the economic prospects their ancestral country might offer to their children if life in the adopted country changes for various reasons. In contrast, indigenous enclaves might have fewer options and resources that restrict their language behaviors and choices. While Turkish speakers outside of Turkey have at least a home country that supports and funds the development of Turkish books and literacy materials, Lazuri AL speakers have to rely on the scarce resources of grass-root projects by community members and a handful of researchers interested in AL preservation.

Definition of Terms

Important definitions are provided below to maintain consistency and clarification of the terms used throughout my dissertation. Terms that lack a citation were developed for this dissertation.

Culture: A social expression (e.g., art, music, dance, literature) and characteristic (e.g., location, language, religion) of a group of people embedded in a complex web of acquired conventions, rituals, and customs, which influence interactions, communication, feelings, thoughts, and the advancement of knowledge.

Ancestral Language (AL): A language acquired by grandparents as their first language (AL) which has been either transmitted to the new generation, i.e., children, or is no longer taught due to assimilation into the mainstream culture which speaks a different language (DL). Ancestral language has been used in the context of ethnicity, identity, and language loss (e.g., Imbens-Bailey, 1998). I am avoiding the terms heritage language or ethnic language due to their strong connotation with immigrant languages. Since my focus is on both— indigenous and immigrant language, the use of ancestral language is motivated by the interwoven relationship of culture, ethnic identity, and language, all situated in the history of a language community. (Throughout the paper AL refers to ancestral language, which is Lazuri for the indigenous group and Turkish for the immigrant group.)

Dominant Language (DL): A dominant language refers to a language that is widely used in social and formal domains, incl. diplomacy and communication in governmental or academic settings, such as English in the US, German in Germany, or Turkish in Turkey, and holds social and economic prestige. (Throughout the paper DL refers to dominant

language, which is Turkish for the indigenous group and German for the immigrant group.)

Language Contact: A situation that occurs in multilingual contexts through interaction of at least two similar or different linguistic groups who negotiate the use of their ancestral (ethnic) language and the other language(s).

Enclave: A distinct geographical area, typically a concentrated neighborhood inhabiting groups of people with similar ethnicity, culture, and language (e.g., Bauer, Epstein, & Gang, 2005). I am distinguishing the term *immigrant enclave*, which exist in Chinatown, New York or “Little Istanbul”, Berlin (e.g., Logan, Zhang, & Alba, 2002; Mandel, 1996) from *indigenous enclave* to highlight the fact that the latter case has been the result of war-induced conflicts, e.g., imperialism or colonialism, leading to the formation of concentrated settlements of locals (indigenous people), who share the same language, folklore, customs, and worldviews that keep the community together.

Parental Language Practices: In multilingual contexts, parents who grew-up acquiring AL often have to make choices about the fate of their ancestral language transmission by negotiating resources and beliefs on what is best for their children’s future.

Lazuri: Indigenous language spoken in the South Caucasus, also known as Laz.

Lazona: The region where Lazuri people live in the provinces of Rize (Pazar, Ardasen, Findikli) and Artvin (Arhavi, Hopa, Borcka) and parts of Georgia (Batumi). Lazona literally means *where the Laz people live*

Organization of the Remainder of the Study

In what follows, I will first provide background information on Lazuri and review contextual frameworks in language endangerment and discuss factors that contribute to language

loss and language maintenance in Chapter 2. In Chapter 3 I will review relevant literature in regard to AL maintenance and loss in immigrant and indigenous children, and discuss universals and variation in early communication with children. After presenting the relevant literature, I will provide a rationale for my study design and method to help form my research questions at the end of Chapter 4. The results of Study 1 will then be presented in Chapter 5 followed by a summary and discussion in Chapter 6. Chapter 7 contains the results of Study 2 followed by a summary and discussion in Chapter 8. Finally, Chapter 9 includes a main discussion and implications drawn from my data, involving limitations of the current research recommendations for further study, involving intervention studies on endangered language preservation projects.

CHAPTER 2

Background of Lazuri Context

My sample includes families recruited from concentrated Lazuri settlements on the mountainous villages of Rize. Rize is best known for tea production and officially has 328,205 residents, with indigenous Lazuri enclaves in Pazar (population: 30,509), Ardaşen (population: 40,109), and Fındıklı (population: 16,225) (Türkiye İstatistik Kurumu, 2013). Lazuri people have traditionally lived in small-scale traditional agrarian communities, where farming, herding, fishing, and forestry are important livelihoods. Farming is usually limited to horticulture, e.g., picking tea and hazelnuts, and is typically carried out by women, while men look for work elsewhere in towns and other cities. Young children's caregivers are usually their grandparents, older siblings, or any member of the extended family. Some families live in nuclear families under one roof (but have large interactions with their family members or neighbors in their community) and other families live in large extended family groups under one roof. Lazuri people have a rich culture in folkdance and during yearly summer festivals, communities from various villages meet at the highlands to celebrate the harvest and engage in cultural activities. During these activities, Lazuri may be used among youth to sing along with other community members. However, during day-to-day activities, Lazuri is used in informal oral communication mostly among members of the older generations (parents and grandparents). Preschool children tend to be spoken to in the DL (Turkish) and learn to speak the DL in social settings in preparation for school; hence Lazuri is severely endangered to become extinct within the next two generations (e.g., Kutscher, 2008). Kutscher (2008) estimates that adults younger than 35 years of age are no longer using Lazuri with their offspring and show signs of language attrition. Dense mountainous settlements once hard to reach prior improvement of infrastructure have contributed to present day variation in Lazuri dialects communities experience trouble

understanding each other and prefer to communicate in the DL (Kutscher & Genç, 1998; Kutscher, 2008). Image 3 below illustrates the spread of dialects within Lazona (Kutscher & Genç, 1998).

Image 3. *Lazuri dialects in Lazona* (Kutscher & Genç, 1998)

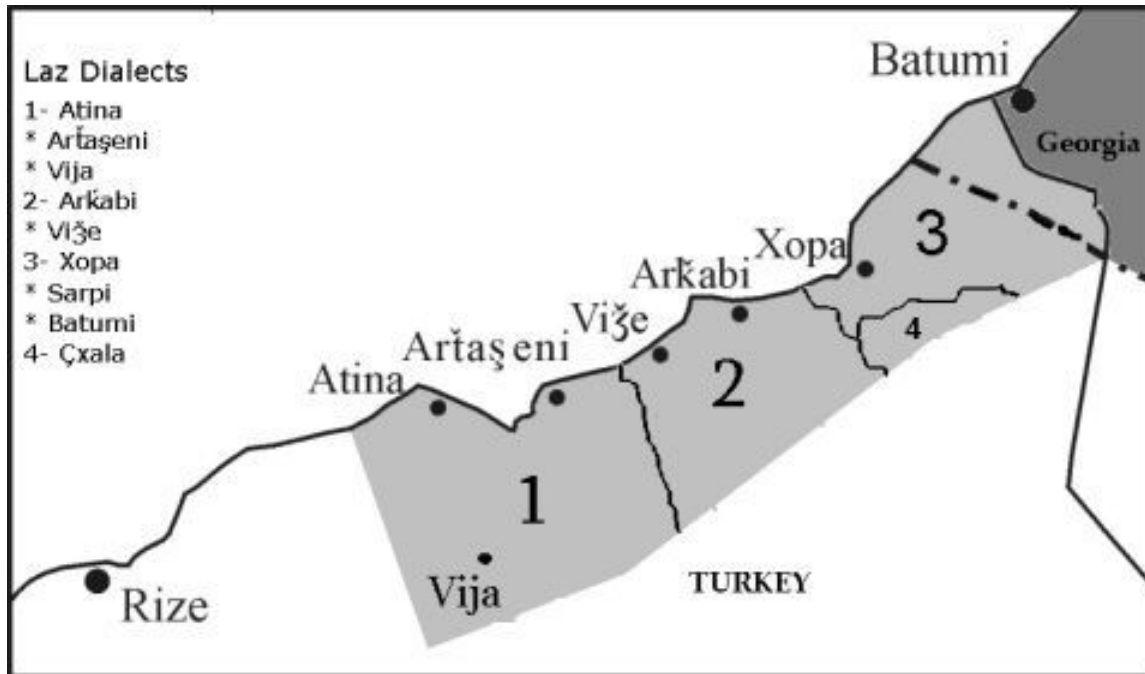


Image 3. Lazuri people still use the indigenous names of their settlements, including villages and towns, hence the names given to the dialects in Image 3 represent the ancestral names: Atina for Pazar, Artaşeni for Ardaşen, Viže for Fındıklı, Arkabi for Arhavi, and Xopa for Hopa.

Background on Initial Recruitment

During my initial field visit to Rize in 2012, I had observed 16 children ($M= 31.6$, $SD=10.8$, *range* 15-47 months) from eight different Lazuri villages in unstructured free play and basic care, involving 5 to 20 minutes long video recording per child. I had stopped including naturalistic observations for future recruitments due to constant movement of children and

extended family members making it difficult to follow children's interactions. I revisited the villages and with the help of locals I recruited more families for structured caregiver-child interactions from 2013-2014, obtaining a final sample of 62 dyads, including 30 grandparent-child and 32 parent-child dyads. The following excerpts (1) and (2) below are taken from my first set of naturalistic observations and provide a general picture of the type of language input children receive in such large networks of extended family members. Excerpt (1), involving a 4-year-old boy sitting on his 64-year old grandmother's lap, shows a child overhearing Lazuri in adult-directed speech; see Image 4. The boy was eavesdropping on the women's conversation, including his 98-year old great-grandmother Fame (left), his 48-year old aunt Fehime (back) and 67-year old aunt-in-law Fatma (front) (names have been changed). The group of women discussed daily agrarian life in Lazona and the high price they pay to sustain their traditional ways of living. (Turkish words and stems are given in italics and Lazuri elements are in bold, a convention used throughout this paper.).

Image 4. *Overhearing Intergenerational Communication in a Lazuri Village*



A 4-year-old boy is overhearing an intergenerational conversation in a Lazuri village, including fluent adult Lazuri speakers varying in age.

(1)

Fehime: **çai** **dožil-i** **handra ?**

tea pluck-PAST today
Did you pluck tea leaves today?

Fame: **sob** **Žiyat-i** ?
where I-find-FUT
Where should I find?

Grandmother: **livadis** **da**
garden-LOC well
Well, in the garden.

Fame: **va**
No.

Grandmother: **ama livadi si keçopayiz si Ži-la da**
but garden you bought you pluck-IMP-FUT INJ
If you own a garden, then you have to pluck yourself.

Fame: **nusa Žil-ums da**
Daughter-in-law pluck-she INJ
Well, my daughter-in-law plucks [tea leaves].

Grandmother: **si Ži-la da nusa-s var Žilen**
you pluck-IMP-FUT INJ daughter-in-law-DAT not pluck
But you have to pluck because your daughter-in-law is unable to pick.

Fame: **ma çai ma-Žilen-i, heya-ten** <shows her leg?>
I tea pluck-I-Q this-INSTR
How can I pluck [tea leaves], with this leg?

Fatma: **nusa-k kiti geloçoğu-don solen Žil-as?**
daughter-in-law-ERG finger cut-PAST where pluck-she
Your daughter-in-law cut her finger, how shall she pluck [tea leaves]?

Boy: <makes sucking sounds with his finger and mouth>

Fehime: *sus!* <to boy>
quite-IMP
Shush!

Grandmother: **nusa-skani var agzalen, topali en**
daughter-in-law-POSS not walk cripple is
Your daughter-in-law cannot walk, she is crippled.

Fame: **ho haŽi topali oxo-du**
yes now crippled become-PAST

Yes, she has now a crippled [leg].

Fehime: **nuşvelam da si ti xala?**
help INJ you also aunt
You also help her, don't you aunt [Fame]?

Fame: **gayi gyi mutu va na buxen-am**
food chores what not REL-PARTICLE do-I
I help her out with household chores that need to be done.

Fame: *başka şey-epe çai var ma-žil-en da gyli-čkimi*
other thing-PL tea not pick-I INJ sweetheart-POSS
My sweetheart, other things [like] tea I cannot pluck [anymore].

The majority of the time (8 minutes of recording time) the women engaged with each other paying little attention to the boy. Except, when he started to make sucking noises with his finger and mouth, one of his aunts shushed him in Turkish: “*Sus!*” The conversation in (1) was predominantly in Lazuri with some elements of codeswitching (mixing of Turkish and Lazuri) involving a few Turkish words, i.e., *ama, topalı, xala, başka şey-epe*, blended into the Lazuri utterances. In contrast to excerpt (1), children typically conversed in Turkish in the context of peer-interaction, as illustrated in excerpt (2), where the 46-month-old boy (Cousin 1) from excerpt (1) played with his 47-month old cousin (Cousin 2), see Image 5.

Image 5. *Peer-interaction in a Lazuri Village*



Image 5. *Cousin 1 holds a screwdriver while Cousin 2 looks over his shoulder (left). Next, both cousins test out the bike (center left). A father (only feet shown) comments on the children's project (center right). Finally, Cousin 1 hands screwdriver to Cousin 2 (right).*

(2)

- Cousin 1: *yap-tu-m* *tamiri*
make-PAST-I repair
I finished the repair.
- ben* *gidi-yom* ... *don-dur-ma*
I go-I ... turn-IMP-NEG
I am going [now]... don't turn [the wheel].
- Cousin 2: *eh* *bu* *gel-mi-yo*
INJ this come-NEG-it
Well, this does not function.
- Father: *oğl-um* *çek-me* *o* *patlak*
son-POSS push-IMP-NEG that flat
My son do not push it, it [has a] flat [tire].
- bak* *lasti-ği* *patlak onun*
look-IMP tire-GEN flat its
Look, its' tire is flat!
- Cousin 2 *öyle* *kal!*
this stay-IMP
Stay like this!
- Father *ol-ma-miş*
work-NEG-PARTCL
It did not get fixed!
- Cousin 1 *buni* *bi* *yap* *da!*
this once make-IMP INJ
Now you fix it!

In excerpt (2), both cousins are trying to fix their bike with a screwdriver. Their play activity is supervised by a father who is standing nearby comments on the children's failure to fix the bike in Turkish, *olmamış!*. This short excerpt (2) exemplifies that Turkish is a means of communication when adults address children and when children communicate amongst themselves. Lazuri is experiencing AL loss because its usage occurs in a limited social domain,

i.e., adult conversations (see excerpt 1), resulting in the decrease of the number of speakers. The next generation is unlikely to transmit the AL because, as children, they lack practice and fluency.

Causes of Language Loss

The causes of language loss are not always clear but are specific to each context. Grenoble and Whaley (2006) list societal changes, such as improvements in infrastructure, urbanization, migration, and the low socioeconomic status of many indigenous communities as consequences of conflicting power relationships. These factors are all tied to the imbalance of prestige and power between the indigenous cultural ways of sustaining livelihood and the dominant culture that is promising modern and convenient living. Lazuri people in concentrated villages are socially disadvantaged in a number of ways. Their harsh agrarian lifestyle and low levels of education often give them less access to resources and political power than members of the mainstream Turkish culture. In my sample, grandparents averaged fewer than 5 years of formal education, with the parent generation averaging only 8 years of schooling. More years of education (coupled with fluency in Turkish) offer families greater potential for social mobility in the mainstream culture where there are better paying jobs than within the local community. Turkish is necessary for individuals to succeed in the work place and provide financial means for their children's education, which is also in Turkish. Any socioeconomic improvements in family status might be perceived as tied to their knowledge of the Turkish language. Due to recent developments—improved roads that decrease the isolation of villagers, greater access to formal education in schools where Turkish is spoken, and technology, which provides access to the mainstream culture, the socially disadvantaged position of the Lazuri people may become associated with their ways of traditional living and AL use.

On the other hand, social prestige might be associated with the mainstream culture and language, as with improvements in health due to, e.g., less physically demanding and risky employment in urban settings. Grenoble and Whaley (2006) called this situation social dislocation. When indigenous families lack prestige and power they are motivated to quickly assimilate to the majority culture. Moreover, families might stop transmitting AL without being aware of the impact of their language behaviors on children's linguistic and social patterns (Fillmore, 1991). Lazuri children today are growing up in the context of language loss, influenced by communal language practices as well as the perceived low status of Lazuri language in mainstream Turkish society. Additionally, since the 1990s when satellite TV entered rural areas in Lazona (Aksoy & Robinson, 1997), children's engagement in watching mainstream programs (e.g., *Disney Fairy Tales*, *The Cat in the Hat*) has played a role in the displacement of traditional social practice of telling oral stories to children, thus, disrupting another means of oral transition of the AL.

CHAPTER 3

Review of Related Literature

Contextual Framework

Vygotsky (1978) emphasized the importance of the social context as the driving force for development and viewed early adult-guided interaction with children as the foundation for the development of higher mental domains, such as the ability to communicate with others.

According to Vygotsky's sociocultural approach, children's communicative competence develops in interaction with the social world and is mediated by situated historical processes and cultural activities. In particular, experts (typically the primary caregivers) scaffold the child's actions and induce socially intelligible intentions and expectations. Vygotsky (1978) introduced the term Zone of Proximal Development (ZPD) to refer to the difference between what a child can master without the help of an adult and what the child is able to do with adult guidance.

Within the ZPD, children internalize the tools for communication, i.e., gestures and speech, and learn cultural conventions and norms for communicative expression. In Vygotsky's theoretical work (1967), early social interactions with caregivers provide the input for emerging communicative structures in the child, including, e.g., deictic gestures (e.g., pointing, showing) and speech acts (e.g., labeling objects and asking questions)

Bruner (1971, 1983) also stressed the importance of the social context while viewing imitation as a social skill in children's acquisition of cultural tools. Describing caregivers as providing a language acquisition support system, Bruner (1983) elaborated on the importance of daily routines (such as peekaboo, reading books, and getting dressed), which engage children in meaningful, organized caregiver-child exchanges. Through participation in social routines, children practice and model what they have learned from their caregivers and more importantly acquire skills to engage in daily life. Bruner (1971) further suggested that caregivers instruct

their young children, and in return, young children respond to this instruction. During didactic interactions children imitate and model the input provided by expert caregivers. Bruner's interactional approach provides a framework in which early social routines, including play, function as important contexts to study communicative development.

Stressing the importance of Bruner's interactional framework, Schieffelin and Ochs (1986) criticized the oversampling of white middle-class families from Europe and America in existing research, and called for the need to apply the framework to study communicative development in less-affluent societies. Schieffelin and Ochs suggested that children in various contexts become competent members of their language community through the process of language socialization. Language socialization always involves at least two speakers and is characterized as a dynamic interactional process. In mother-child interaction, for example, the mother not only guides her child's participation in social activities, but at the same time she is socialized into the role of primary caregiver. Through the process of negotiating interactions, the mother learns to attune to her children's needs in relation to their changing abilities as well as cultural norms and practices. Through adult guidance, children learn to use language in interpersonal and societal contexts. The language socialization approach provides another framework in which the role of parental beliefs and the situational context can be examined as factors in the child's development of communicative skills.

Fishman (1991) likewise stressed the importance of children's early learning environments and applied the family context to endangered languages through a scale used to measure the vitality of a language. He proposed the 8-stage Graded Intergenerational Disruption Scale (GIDS) in which intergenerational transmission in the maintenance of AL is key. Stage 8 and Stage 1 represent the ends of the scale: endangered language near total extinction vs.

dominant language least disrupted. Stage 8 is associated with language loss and requires joined collaboration of experts and community members for language revitalization. Stage 1 is associated with a language that is widely used in various institutional domains. Table 1 shows an adaption of Fishman’s GIDS by Lewis and Simons (2010). While Stages 1 to 5 refer to languages used in more formal institutions, Stage 5 and 6 highlight language use in communities and families with young children and, where possible, use of the language in written as well as oral forms. Fishman’s scale can be used to focus attention on critically important behaviors that occur at Stage 6 to encourage expert caregivers (e.g., grandparents, parents) to use AL when interacting with their children for the sake of language preservation.

Table 1

The Graded Intergenerational Disruption Scale (GIDS)

Stage	Description
1	The language is used at the national level comprising various domains, incl. education, work, mass media, and governmental institutions.
2	The language is used for local and regional mass media and governmental services.
3	The language is used for local and regional work by both insiders and outsiders.
4	Literacy in the language is transmitted through education.
5	The language is used orally by all generations and is effectively used in written form throughout the community.
6	The language has an oral tradition for transmission, is spoken by all generations and learned by children as their first language.
7	The language is known by the child-bearing generation well enough to use it with elders but is not transmitting to the next generation, i.e., children.
8	The language is spoken by only the grandparent generation.

Guided by these perspectives, this dissertation utilized an elicitation task in which families were prompted to use the AL in the context of caregiver-child interaction in structured play with culturally relevant toy sets (animal-farm and tea-party). Study 1 investigated possible generational differences (i.e., grandparent-child vs. parent-child interaction) in caregiver-child interaction within an endangered language community in Lazona (Study 1). Study 2 compared AL use across language enclaves (i.e., indigenous enclave in Lazona vs. immigrant enclave in Berlin). I hypothesized that the elicitation task would yield (a) generational differences in AL use within Lazona (b) cultural differences in AL use across indigenous and immigrant enclaves (Lazona vs. Berlin), and (c) situational differences in early forms of communication across activity contexts (animal-farm vs. tea-party). Finally, within the context of language loss, I expected (d) Lazuri children to produce AL more frequently through imitation than spontaneous speech, and that (e) caregivers would facilitate comprehension of AL through higher rates of AL-gesture combinations than DL-gesture combinations.

Dual Language Development

The development of dual language skills is shaped by various factors, such as age at which children started to acquire the DL, parental language socialization goals, attitudes towards bilingualism, and beliefs about their children's wellbeing. Such beliefs contribute to the rapid language loss in favor of a DL in some communities (Lyon, 1991; Meakins, 2008), whereas other communities adopt strategies that support the maintenance of the AL and provide pathways for early bilingualism (De Houwer, 2007; Li, 1999). Three distinct types of dual language acquisition have been proposed in the bilingualism literature (e.g., Cummins, 1979): simultaneous, sequential, and subtractive. When children acquire two (or more) languages during the period of rapid language acquisition (i.e., around age 3), they are regarded as simultaneous

bilinguals. Sequential bilingualism typically occurs in language enclaves where children first acquire their AL at home and later acquire a second language through formal schooling (often at age 5) while continuing to maintain the AL at home. Finally, subtractive bilingualism refers to the loss of the AL due to linguistic assimilation that motivates children to adopt the DL once they enter the school system. In subtractive bilingual situations, parents might stop using AL at home because they might either perceive the AL as an indicator of low social status or believe that use of the AL will hinder their children's acquisition of the DL (Cummins, 2000; Fillmore, 1991; Harres, 1989). On the other hand, when parents have limited DL proficiency, parents are more likely to maintain AL in order to be able to communicate effectively with their children (e.g., Lambert & Taylor, 1996). Parents who provide support for the development of dual language competence might also be interested in the development of their children's cultural identity and the strengthening of family ties with extended family members by communicating in an AL (Kamo, 1998; King & Fogle, 2006).

Role of Grandparents

Conventional communication practices create societal spaces, which Fishman (1977) calls domains. In bilingual communities, domains often vary with respect to the language(s) used to communicate about different topics in different contexts, ranging from formal institutional contexts (e.g., school, workplace, government, or church) to informal conversations (involving family or friends). Each domain is subject to cultural scripts that model societal expectations for language use, which Fishman (1991) suggests influence the language behaviors of community members in language contact situations. At the same time he stresses the importance of the family's intimate and private sphere, which might function as a bulwark against outside pressure to use the DL of formal institutions. By focusing on families, researchers can better understand

how various family members support (or inhibit) dual language development in their children. In the context of childcare in agrarian communities, like Lazona, it is important to include grandparents who are involved in children's day-to-day care (King & Elder, 1995), and may function as experts in use of the AL. Grandparents may act as family historians and, as caregivers, may play an important role in the transmission of the AL, community values, and customs to their grandchildren (Kamo, 1998). Large-scale datasets in immigrant families show an association between the grandparents' presence at children's home and AL maintenance (Ishizawa, 2004; Verdon, McLeod, & Winsler, 2014), and suggest that the type and frequency of input to young children is the most crucial factor for dual language development. Unfortunately, most of the existing literature has examined language usage through self-report measures, and lacks information on actual AL production in caregiver-child social interaction. This dissertation elicited AL use across multiple generations of caregivers (i.e., in grandparent-child dyads vs. parent-child dyads) to provide critical information on how AL usage might be encouraged through child-directed speech while, at the same time, testing children's fluency in using the AL.

Early Communication

Language development requires mastery of multiple sub-systems, including the sound system (phonology), vocabulary (lexical knowledge), word order (syntax) and word formation (morphology). These sub-systems interface with the usage of language (non-verbal communication, including gesture and facial expression, and pragmatics) during social interactions with language experts, i.e., primary caregivers. The quality and quantity of child-directed speech to young children varies widely. Empirical evidence shows that children's language development and communicative competence is enhanced by substantial amounts of input, involving immediate verbal replies to children's verbal behaviors (parental

responsiveness) and use of complex morphosyntactic utterances during social activities and cultural routines (e.g., DeLoache & Mendoza, 1987; Hoff, 2006; Hoff-Ginsberg, 1991; Nelson, 1981; Tamis-LeMonda, Kuchirko, & Song, 2014).

In addition to speech, parents utilize a variety of nonverbal behaviors (e.g., conventional and deictic gestures) when communicating with young children. Gestures co-occurring with speech may facilitate comprehension, by reinforcing what was said or by adding new information (McNeil, Alibali, & Evans, 2000). Young children tend to respond more quickly and may be more likely to respond to input accompanied with pointing or other deictic gestures, which suggests that gestures may draw children's attention to what is being said (Hodapp, Goldfield, & Boyatzis, 1984; Tfouni & Klatzky, 1983; Morford & Goldin-Meadow, 1992). Gestures have been also associated with the reduction of cognitive load in demanding tasks (e.g., Goldin-Meadow, Nusbaum, Kelly, & Wagner, 2001). Early work by Bates and colleagues (1977) showed that children's use of deictic gestures correlated with the production of their first nouns. At around 9-12 months, infants with typical development start to use pointing and other deictic gestures (show, offer, and request) for a variety of communicative functions (Bates, 1976; Bates et al., 1977; Carpendale & Carpendale, 2010). Deictic gestures are also coupled with infants' growing ability to comprehend and produce language. Infants show capability to follow adults' pointing to objects which are present, and even when objects are not present, infants seem to check back with adults to understand the communicative meaning behind the pointing gestures (Liszkowski, Carpenter, & Tomasello, 2008; Wu, & Gros-Louis, 2014). Once children have started to follow and engage in object pointing, within a short time they are likely to produce the names of the objects they had previously pointed at (Iverson & Goldin-Meadow, 2005). Gentner (1982, 2006) suggested that infants produce their first nouns before they produce their first verbs

because verbs convey relational information and require more experience and linguistic guidance from the environment than determining the referent of a noun (i.e., providing the name of an object). Early communication with children seems to be shaped by how children are engaged with the world, their physical environment including toys and other objects, and how their acting in the world is interpreted and acknowledged by caregivers.

The Role of Context on Interaction

Research indicates that the affordances of toy props and other objects used in social interaction shape communicative patterns in caregiver-child exchanges (Snow et al., 1976, Hoff-Ginsberg, 1991; Yont, Snow, & Vernon-Feagans, 2003). Since Piaget and Vygotsky (Piaget, Gattegno, Hodgson, 1962; Vygotsky, 1933/1967) imaginary play has been identified as a context eliciting complex language and gestural communication (Crain-Thoreson, Dahlin, & Powell, 2001; Ninio, 1980). O'Brien and Nagel (1987) found differences in the quantity and quality of child-directed speech as a function of toy type, with the context of doll play eliciting more labeling and questioning, the context of vehicle play eliciting less talk and more imaginative sounds, and the context of shape sorting showing the highest frequency of directives and behavior controlling utterances. Another study examined differences in maternal behavior as a function of socio-economic status (SES) across multiple contexts, including basic child-care (mealtime, dressing) and structured activities (book reading, shape sorting) (Hoff-Ginsberg, 1991). The biggest differences in maternal behavior were observed in basic child-care as compared to the structured tasks, with lower SES mothers being more directive than higher SES mothers when interacting with their children. Within structured tasks, SES differences were diminished.

Another approach to understanding the impact of context on communicative patterns has contrasted so-called contexts of action versus regard, which offer different sets of opportunities for interaction. Puccini, Hassemer, Salomon, and Liszkowski (2010) compared caregiver-infant communication during free floor play (i.e., a context of action) and in exploring a richly decorated room (i.e., a context of regard), and showed how communicative interactions were structured by the two contexts, especially with regards to whether the infants could manually (as opposed to visually) explore objects. They observed higher frequencies of ostensive pointing and naming of objects in the context of regard. In contrast, the context of action elicited higher frequencies of object manipulation and demonstrations of action affordances. This dissertation uses two semi-structured play activities (i.e., animal farm vs. tea-party) as a situational context to study cross-cultural variation among caregiver-child interactions in two differing language enclaves; one experiencing AL loss (i.e., Lazuri-Turkish community in Lazona) and the other engaging in AL maintenance (i.e., Turkish-German community in Berlin). Specifically, the tasks fit with the daily activities of the Lazona and Berlin families to investigate child-directed speech and gesture when encouraged to interact in the AL and to further show how young children exposed to varying degrees of dual language acquisition (i.e., indigenous vs. immigrant) coordinate their communicative acts with their caregivers.

CHAPTER 4

Research Goals and Rationale

Most studies on dual language acquisition have tested the role of parental language practices via questionnaires, probably due to the lack of materials for standardized testing of speakers' proficiency in most immigrant and indigenous languages. As previous researchers (e.g., Kutscher, 2008) and my own field observations revealed that there was a lack of child-direct speech in Lazuri, I was motivated to create an elicitation task that would encourage caregiver-child dyads to communicate in Lazuri while assessing their proficiency in speaking the AL. I was uncertain whether caregivers would be open to the idea of interacting with children in their AL—a language that they grew-up acquiring, but chose not to use with their own children (or grandchildren, in the case of grandparents). At the same time, the elicitation task was designed to evaluate the extent to which Lazuri children could fluently produce the AL. As a comparison, I also used the elicitation task with families in Berlin who have maintained their AL (Turkish) via child-directed speech. In analyzing caregiver-child interactions, I examined how persistent Lazuri caregivers were in using Lazuri over consecutive utterances (despite their children using Turkish), and how often they used deictic gestures in combination with utterances to facilitate communication. Because speaking Lazuri to children was not an easy task in terms of practice, Lazuri caregivers were expected to use deictic gestures proportionally more often when speaking Lazuri than when speaking Turkish with their children.

In Study 1, where I examined caregiver-child communication in the context of AL endangerment and potential loss, my first goal was to examine generational differences in caregivers' use of Lazuri with children. The literature review suggested that grandparents, especially those in rural areas who function as caregivers, have a close relationship with their grandchildren and may play a critical role in the transmission of an AL. Based on Fishman's

transmission model (1991), grandparents are expected to speak Lazuri more often in daily life than the intermediate generation of parents. Viewing the grandparent generation as expert Lazuri speakers, I was interested to find out whether grandparents would show greater fluency and more persistence in speaking Lazuri than parents when conversing with children. Additionally, I was interested to see if children would be more likely to speak Lazuri when interacting with grandparents as opposed to parents. I expected caregivers to comply with instructions to speak AL with the children, but was uncertain as to whether the children acquiring AL through passive exposure (overhearing adults speak Lazuri) would speak the AL in return. Young children growing up in communities where endangered ALs are spoken mostly by elders have been shown to acquire some passive knowledge and comprehension of the AL (Meakins & Wigglesworth, 2012), yet it remains to be tested whether children can develop competence in speaking an AL when there is little child-directed speech in the AL. A second goal of Study 1 was to see if children modeled their caregivers' input and imitated the AL utterances. Nadel and colleagues (1999) have suggested that children's imitation of caregivers' social signs serve as a communicative strategy, allowing dyads to establish a common ground for interaction. Finally, a third goal of Study 1 was to examine the facilitating role of gestures in language comprehension. Empirical evidence suggests that gestures function as an external support to reinforce language comprehension in young children (McNeil et al., 2000). Thus, I examined whether caregivers would produce more deictic gestures when speaking Lazuri as opposed to Turkish, as a means of facilitating their children's grasp of the referents of Lazuri words.

In the context of cross-cultural comparison in Study 2, I used the elicitation task to compare AL fluency in two distinct language enclaves (i.e., indigenous vs. immigrant) to examine how parental language practices affect the dynamics of parent-child communication.

This allowed me to focus on how the play activity shaped the communicative exchanges among parent-child dyads across cultural contexts. In line with previous studies of caregiver-child interaction, which suggest that the type of activity strongly influences the structure of the accompanying communication (Goldfield, 1993; Tardif, Gelman, & Xu, 1999), I examined variation in use of utterance types (i.e., labels, questions, comments, commands, invitations, and deictic expressions) across activity contexts. This coding allowed me to examine similarities as well as differences in parent-child communication—comparing a situations where children were expected to struggle in their use of the AL (Lazona) with a situation where the children were expected to converse fluently in the AL (Berlin). I expected that despite beliefs about how to talk to children, parental strategies in interacting with young children would be similar, with parents and children using expressions to ground communication in the here and now.

Cross-cultural research indicates variation in how caregivers talk to children, yet children learn language around the same time despite variation in the input (e.g., Hoff, 2006; Lieven & Stoll, 2013). By encouraging the use of AL in two rarely studied language enclaves, my goal was to contribute stories of language loss and language maintenance to the cross-linguistic literature. By encouraging AL use in the context of caregiver-child interaction, I hoped to inspire families to use their AL for the sake of cultural preservation.

Research Questions

Study 1 involved 62 children (12 to 48-month-olds) interacting with their caregivers (i.e., 32 parents, 30 grandparents) in Lazona. Study 2 age-matched a subset of the parent-child dyads ($N=12$) of Study 1 with parent-child dyads from an immigrant community in Berlin. Families in the two communities were of similar socioeconomic status (working class), religion, and shared Turkish background, yet differed strikingly in the extent to which they encouraged AL use (and

resulting bilingualism) in their children. The data collected were used to address the following research questions.

- ***Research Question 1: Generational Differences in Communication***

Will grandparents show greater fluency and persistence in speaking AL with children than parents?

- ***Research Question 2: Children's Use of Lazuri***

Will children produce any spontaneous Lazuri or depend on their caregivers' input?

- ***Research Question 3: The Role of Gesture in Language Coordination***

Will caregivers provide greater scaffolding of their Lazuri utterances than their Turkish utterances by using deictic gestures in combination with utterances to facilitate their children's comprehension of the AL?

- ***Research Question 4: Parental Language Practices***

Will the elicitation task show differences in AL use based on parental language practices in parent-child dyads from Lazona and Berlin?

- ***Research Question 5: Cultural Differences in Language Use***

Will parent-child dyads show similarities as well as differences in language use based on location (Lazona vs. Berlin)?

CHAPTER 5

Study 1

Grandparent-child and Parent-child Interaction in Lazona

Study 1 elicited caregiver-child communicative exchanges in Lazuri with the goal of observing early communicative exchanges in the context of language endangerment. I transcribed the entire video recordings for utterances by language (i.e., Lazuri, Turkish, Mixed) for all participants and further examined how caregivers supported the comprehension of their utterances and whether children were able to produce any spontaneous Lazuri. I also examined how toy objects were introduced into play through showing, offering, and requesting gestures (collectively referred to as deictic gestures). Specifically, I examined if caregivers more often combined Lazuri utterances with deictic gestures than Turkish utterances with deictic gestures, in order to facilitate their children's understanding of Lazuri. Pointing gestures included index finger pointing as well as non-canonical forms of pointing involving different hand shapes and body parts, which are known to co-exist with index-finger pointing in many societies (e.g., Enfield, 2001; Wilkins, 2003). When gestures are coupled with speech, they may serve to reinforce or complement the co-occurring utterance, facilitating comprehension (e.g., McNeil, et al., 2000).

I included grandparents as caregivers since they are a critical part of Lazuri children's learning environment. This allowed me to examine whether caregiver generation (i.e., grandparents vs. parents) influenced communicative patterns. Specifically, I tested the hypothesis that grandparents functioned as the cultural gatekeeper of Lazuri (i.e., experts AL) since they had taught Lazuri as an AL to their own children (i.e., parent generation) and would produce more Lazuri utterances than parents when interacting with their grandchildren (i.e., child generation).

Method

Participants

Only families that still conversed in Lazuri at home were recruited. Sixty-two children (28 girls, 34 boys, $M=29.8$ mo, $SD=10.8$, range 12-48 mo) were recruited from Laz settlements in Ardaşen (69.4%) and Fındıklı (30.6%) of Rize-Turkey. Over half of the children (60%) lived with or in close proximity to their grandparents, who were often primary caregivers. About half of the children ($N=30$, $M=29.4$ mo, $SD=11.1$, range 12-48 mo) were recorded interacting with a grandparent (15 grandmothers, 15 grandfathers, $M=61.7$, $SD=8.1$, range 50-80 years) while the remaining children ($N=32$, $M=31.0$ mo, $SD=10.5$, range 15-47 mo) were recorded with a parent (21 mothers, 11 fathers, $M=35.0$, $SD=8.8$, range 23-66 years). See Table 2 for age breakdown.

Table 2

Age of Participants (N=124) by Type of Dyad and Person (SD in parentheses)

Type of Dyad	Person	N	Mean Age	Range	
grandparent-child dyad (N=30)					
	grandmother	15	62.6 (7.6)	52-77	years
	grandfather	15	60.7 (8.8)	50-80	years
	girl	13	32.8 (12.3)	12-48	months
	boy	17	26.8 (9.7)	12-45	months
parent-child dyad (N=32)					
	mother	21	33.2 (6.9)	23-52	years
	father	11	38.5 (11.3)	28-66	years
	girl	15	31.8 (10.0)	16-47	months
	boy	17	28.8 (11.4)	15-47	months

All adults indicated that they spoke Lazuri when conversing with other adults; 90% of adults indicated that they spoke only Turkish with children. All caregivers provided written consent for videotaped participation. Children received soft animal toys as gifts.

Procedure

Dyads engaged in two structured-play tasks using animal-farm toys by Fisher-Price and a tea-party set by Schylling. Each task was recorded for 10 minutes with one Lazuri-speaking caregiver present at all times. At the start of each task, caregivers were given a cloth bag containing the toy set, which they could arrange as they liked. All caregivers were told, with the child present, to interact as they normally would; however, I instructed them to communicate in Lazuri as opposed to Turkish. If necessary, during the play sessions, caregivers were reminded to speak Lazuri, using the prompt **Lazuri isinapi** [Speak Lazuri]. To limit the researcher's involvement, this prompt was used no more than four times (two in each context) throughout the entire session; 44 caregivers (71%) required no prompts, and only two mothers (3%) received the maximum of four prompts.

Coding

Utterance. Video recordings were analyzed using SubTrak video-coding software (Takash, Lindtvedt, & Ragir, 2006), which allows for simultaneous video viewing and coding of time-locked events. I watched the video recordings and transcribed all speech, with individual utterances distinguished by pause and pitch contours (Hoff-Ginsberg, 1991). For each utterance, I recorded the language used: Lazuri (AL), Turkish (DL), or Mixed, with Mixes referring to the use of both languages within a single utterance (Imer, 1997). Single-word utterances consisting of interjections (INJ) (e.g., *aha*, *hmm*) were transcribed, but not analyzed. Utterances were

independently coded by me and a trained research assistant (native bilingual speaker of Lazuri and Turkish) with high inter-coder reliability ($\kappa=.93$).

Imitation of Caregiver Speech. I further coded the utterances of children as imitative speech if they matched within 15 seconds their caregivers' utterance (Eckerman, 1991). Approximate utterances produced by children that somewhat matched phonologically their caregivers' input were also counted as speech imitation. For example, if children heard "**Ham oxori ren**" [This is a house] and they produced "**oxi**" then this counted as an imitative behavior.

Deictic Gestures. Images 6 and 7 display actual examples of participants' deictic gestures (pointing and transfer-initiating), and Table 3 presents the coding scheme. With the audio turned off, 20% of the videos were coded independently by the author and a trained research assistant (non-Lazuri speaker), with almost perfect agreement ($\kappa=.96$). All disagreements were resolved through discussion.

Coordinated Speech+Gesture Input. Once all utterances were transcribed and the deictic gestures were marked, I went back to the transcriptions and marked each time-locked caregiver utterance (i.e., Lazuri vs. Turkish) that was accompanied by a deictic gesture as coordinated input (i.e., Speech+Gesture Combination). This allowed me to calculate rates of speech+gesture coordination, i.e., the percentages of Lazuri and Turkish utterances that were combined with a deictic gesture.

Table 3

Categories of Deictic Gestures

Pointing		
Index		Person extends index finger to coordinate their own or another’s attention towards an object, location, or person.
Hand		Person extends hand, palm or one or more finger(s) (other than index) to coordinate their own or another’s attention towards an object, location, or person
Face		Person extends their head or part of the face (lip, eyebrow) to direct attention towards an object, location, or person. Face pointing excluded facial mimicry caused by nodding head, shrugging shoulders, or other types of head movements.
Transfer-initiating		
Show		Person directs an object towards another person’s view, holding it motionless for longer than one second.
Offer		Person signals a potential object transfer by moving object towards recipient’s hand.
Request		Person extends open hand toward desired object held by other person or out of reach.

Image 6 provides examples of index (left), hand (center), and face pointing (right). Shown left is a 29-year old father who points with his index finger to the barn and utters, “**Hentepe mexvi!**” [Take all out!], while his 47-month-old son gazes at the finger. Shown in the center is a 43-month old boy directing the attention of his 56-year old grandfather with a hand pointing to the farm animals and utters, “*Şunlar ne güzel*” [How beautiful are these]. Shown right is a 34-month-old boy face pointing to the tea cup and uttering, “*O senin o*” [That there is yours] to his 30-year-old mother.

Image 6. *Examples of Pointing Gestures*



Image 7 illustrates transfer initiating gestures: a 30-year-old mother shows a toy object to her 24-month old daughter and utters: “**Ham bozo ren**” [This is a girl] (left); a 62-year-old grandfather offers a toy object to his 19-month-old grand-son and utters: “**Keçopi!**” [Take!] (center); the grandfather opens his palm and requests the toy object back, uttering: “**Momçi!**” [Give!] (right).

Image 7. *Examples of Transfer-initiating Gestures*



Results

Data Transformation and Analysis Plan

Although the two toy sets were made available for 10 minutes each, session lengths varied somewhat due to disruptions from family members. Therefore, frequencies of utterances were adjusted in accordance with the observed session length.

To comply with normality assumptions, I transformed all frequency and proportional data prior to analysis. For frequency data, I performed square-root transformations, treating frequencies of 0 and 1 the same as other values by adding 2 to each frequency before taking its square root (Cohen, Cohen, Aiken, & West, 2003). For proportional data, I used the arcsine transformation (Cohen et al., 2003). All descriptive statistics report raw frequencies and proportions.

In order to address Research Question 1 (generational communication), I first examined participants' overall frequency of language use (Lazuri, Turkish, Mixed) and examine generational differences in AL frequency of use and persistence, with excerpts provided. To address Research Question 2, I examined the extent to which children were able to speak Lazuri in conversations with their caregivers, and the extent to which their Lazuri speech was imitative as opposed to spontaneous. To address Research Question 3, I examined how frequently caregivers accompany Lazuri utterances with deictic gestures as opposed to Turkish and Mixed utterances.

For each set of analyses (where appropriate), I first present the descriptive statistics, relationships with child age and provide excerpts to support the findings. I included age as a covariate, however, if age failed to yield any significant effects, it was removed from the model.

To center the covariate, I subtracted 24 from the child’s age to create a new age variable (cf. Delaney & Maxwell, 1981).

Comparison of Lazuri Usage across Generations

Table 4 shows frequencies of elicited utterances in each language (Lazuri, Turkish, Mixed) for caregivers and children, with data presented separately for grandparent–child dyads and parent–child dyads.

Table 4

Frequencies of Elicited Utterances by Dyad Type, Participant, and Language (SD in parentheses), with mean percentages provided (summing to 100% for each column).

Language	Grandparent–child Dyads (<i>n</i> =30)		Parent–child Dyads (<i>n</i> =32)	
	Caregiver	Child	Caregiver	Child
Lazuri	165.9 (86.2) 59.4%	6.7 (10.1) 12.5%	176.1 (76.4) 57.6%	14.1 (21.4) 16.8%
Turkish	65.0 (37.0) 26.6%	40.7 (42.1) 85.2%	77.6 (55.2) 25.5%	63.8 (46.0) 80.6%
Mixed	38.7 (21.7) 14.0%	1.7 (2.8) 2.3%	51.1 (22.6) 16.9%	2.8 (3.6) 2.6%

To examine overall differences in talkativeness, I conducted an ANCOVA on the total frequencies of utterances, with dyad type (grandparent-child, parent-child) as a between-dyad factor, participant (parent, child) and language (Lazuri, Turkish, Mixed) as a within-dyad factor, and age as a covariate. All main effects were significant. The main effect of dyad type,

$F(1,59)=7.59, p=.008, \eta_p^2=.11$, indicated that parent-child dyads were more talkative ($M=385.4$

utterances) than grandparent-child dyads (M=318.7). The main effect of participant, $F(1,59)=328.74, p<.001, \eta_p^2=.85$, indicated that caregivers produced more utterances (M=287.8) than their children (M=65.4). The main effect of language, $F(2,118)=54.19, p<.001, \eta_p^2=.48$, indicated that dyads produced more Lazuri utterances (M=172.6) than Turkish (M=105.7) or Mixed utterances (M=40.4).

These effects, however, were qualified by significant interactions. The interaction of participant and language, $F(2,118)=80.81, p<.001, \eta_p^2=.58$, reflected different preferences for language use by caregivers and children: Whereas caregivers produced a greater number of Lazuri utterances (M=171.2) than Turkish (M=71.5) or Mixed (M=45.1), children produced more Turkish utterances (M=52.7) than Lazuri (M=10.5) or Mixed (M=2.2). With an increase in child age, dyads produced more utterances in Lazuri, $r(N=62)=.38, p=.002$; frequencies of Turkish utterances, $r(N=62)=-.04, p=.738$, or Mixed utterances, $r(N=62)=-.03, p=.850$, did not vary as a function of child's age.

Conversational turn taking in Lazuri is illustrated in the excerpt (3) involving a father and his 46-month-old son. The father initiates the conversation and asks (-Q) his son, “**hay mu garodu?**” [what happened here?]. The boy spontaneously responds in Lazuri and the conversation unfolds, with the dyad counting in Lazuri how many **pupuli** [booboo] the boy has on his leg. Once both have counted from one to ten, the father utters that he cannot count higher and initiates another counting episode, *bir daha sayalum* [let's count again]. The boy immediately starts to count in Lazuri and both, father and son engage in a Lazuri counting game.

(3)

Father: **hay mu garod-u?**
here what happen-PAST-you
What happened to you here?

Boy: **pupuli**
booboo

Father: *başka gixun-i?*
other have-Q
Do you have another one?

Father: *lazca bi sayalum hayde*
Lazuri one count-we common-INJ.
Common, let's count in Lazuri.

Father: **ar**
one

Boy: **ar**
one

...
Father: **xut**
ten

Boy: **xut**
ten

Father: *gerisi ma ti va mişkun*
rest me also not know-I
The rest, I also do not know.

Father: *hayde bi daha sayalum*
common-INJ one more count-we
Common, let's count again.

Boy: **ar**
one

Father: **jur**
two

Boy: **sum**
three

With regards to Research Question 1, the elicitation task did not yield generational differences in child-directed speech other than the main effect that parent-child dyads were more talkative than grandparent-child dyads, overall. As a further analysis, I examined whether grandparents were more persistent in speaking Lazuri, as measured by the length of a bout of speaking the AL (i.e., number of consecutive utterances using Lazuri as the primary language). For each caregiver, I calculated the length of their longest bout—the maximum number of consecutive utterances they produced in Lazuri. Table 5 shows the mean length of the longest bout of consecutive Lazuri utterances as a function of caregiver generation, as well as the range in the length of the longest bout for each group.

Table 5

Caregivers' Persistence of Lazuri Use (SD in parentheses)

	Mean	Minimum	Maximum
grandparents	14.9 (9.0)	4.0	46.0
parents	12.7 (6.6)	4.0	31.0

Both grandparents and (M=14.9) and parents (M=12.7) showed persistence in producing consecutive utterances in Lazuri, and did not differ significantly with respect to the maximum bout length, $t(60)=1.11, p=.272$. Thus, counter to hypothesis that the grandparent generation would function as the language experts, grandparents did not produce more Lazuri utterances or longer bouts of Lazuri than parents.

To summarize, across the play sessions, caregivers appeared to guide the conversations, and produced a greater number of utterances than the children overall. Caregivers followed

instructions and spoke Lazuri in the majority of their utterances (58.5%), but nevertheless often resorted to using Turkish (26.0%), or Mixed utterances (15.4%). Caregivers who produced more utterances in Lazuri, tended to produce a greater number of Mixed utterances, $r(N=62)=.40$, $p=.007$, and fewer Turkish utterances, $r(N=62)=-.38$, $p=.002$. Children, in contrast, were much less willing or able to speak Lazuri. Consequently they spoke Turkish in the majority of their utterances (82.8%), with fewer Lazuri (14.8%), or ML utterances (2.4%). Similar to the caregivers, children who produced a greater number of Lazuri utterances also produce more Mixed utterances, $r(N=62)=.36$, $p=.004$, however, there was no significant association between Lazuri and Turkish usage, $r(N=62)=.12$, $p=.341$,

Excerpt 4, involving a 34-month-old girl with her grandmother (Ardeşen-dialect), illustrates the dynamics of codeswitching between languages. First the grandmother asks a question in Lazuri which the child answers in Turkish. The grandmother repeats the Turkish but provides the Lazuri translation. The girl subsequently adds the Turkish possessive (POS) inflections *-n* (your) and *-m* (my) to the Lazuri noun, and finally repeats her grandmother's Lazuri.

(4)

Grandma: **ha mu oren**
 this what is
 What is this?

Girl: *bizim çileği-miz*
 our strawberry-POS
 This is our strawberry.

Grandma: *çilek* **ķandxu-šķimi**
 strawberry strawberry-mine
 Strawberry, this is my strawberry.

Girl: *ne* **ķandxu-n**
 what strawberry-POS

What, is this this your strawberry?

Girl: *benim ĩkandxu-m*
my strawberry-POS
This is my strawberry.

Grandma: **ham ĩkandxu**
this strawberry
This is a strawberry

Girl: **ĩkandxu**
Strawberry

Imitative Use of Lazuri

Given that the Lazuri children infrequently spoke in Lazuri, I conducted further analyses to examine their use of the AL in relation to Research Question 2. Children's imitative use of Lazuri was unrelated to age, but correlated significantly with talkativeness. Children who were more talkative were more likely to imitate their caregivers' Lazuri utterances, $r(N=62)=.68$, $p<.001$, Turkish, $r(N=62)=.90$, $p<.001$, and Mixed utterances, $r(N=62)=.76$, $p<.001$. Children's usage of Lazuri correlated with overall frequencies of imitative speech $r(N=62)=.95$, $p<.001$; children who imitated their caregivers' use of Lazuri more often used Lazuri spontaneously, $r(N=62)=.69$, $p<.001$.

Overall 79.8% of children's Lazuri utterances were imitative, as opposed to spontaneous speech (21.2%). Similarly, 70.0% of their mixed utterances were imitative, and mixed utterances showed a positive association with frequency of Lazuri use, $r(N=62)=.58$, $p<.001$.

These data suggest that the elicitation task, which required caregivers to speak in Lazuri, created a language-learning context for the children: Children were guided by their caregivers and produced Lazuri mostly through imitation, as shown in excerpt (5), involving a 28-year old father interacting with his 45-month old (Ardasen-dialect).

(5)

Father: **him laç'i**
 this dog
 This is a dog.

Father: **him mu oren?**
 this wat is
 What is this called?

Child: **laç'i**
 dog
 This is a dog.

Father: **laç'i so dobd-vat-u?**
 dog where put-we-Q
 Where shall we put the dog?

Father: **laç'i-na so ren? so id-u?**
 dog-DIM where is. where gone-Q
 Where is the doggy? Where did it go?

Child: **laç'i burda**
 dog here
 The dog is here.

While the caregiver in excerpt (5) shows no difficulty in finding Lazuri words for the toy objects, other caregivers introduced Lazuri elements to familiar Turkish words, as a means of complying with the instructions to speak Lazuri. This suggests that some caregivers may have found it difficult to converse fully in Lazuri while their children spoke to them in Turkish, as it is illustrated in excerpt (6), involving a 24-month-old girl and her mother (Ardaşen-dialect). Excerpt (6) highlights that children's use of Lazuri was characterized by single-word repetitive utterances of Lazuri suffixes (i.e., diminutive inflection (DIM)) added to Turkish roots, which was also provided in the input.

(6)

Mother: *bu koyun-ina dur*
this sheep-DIM is
This is a sheep-ie

Girl: *koyun-ina*
sheep-DIM
Sheep-y

Mother: *aha bu da civciv-ina*
here now-EX this also chick-DIM
Look, here is also a chick-y

Girl: *civciv-ina*
chick-DIM
Chick-y

Mother: *bu koyun-ina dur*
this sheep-DIM is
This is a sheep-y

Girl: *koyun-ina*
sheep-DIM
Sheep-y

The Role of Gesture in Facilitating AL Comprehension

Research Question 3 asked whether caregivers would more often combine utterances with deictic gestures to facilitate comprehension when speaking to their children in the AL as opposed to the DL. That is, given that the caregivers were aware of the preference of their children to speak Turkish, and did not know whether their children understood Lazuri, would they rely on gestures to facilitate language comprehension of the AL?

Table 6 shows frequencies of utterances that were categorized as Speech only vs. Speech+Gesture as a function of caregiver, with percentages of coordinated Lazuri and Turkish input presented separately.

Table 6

Frequencies of Lazuri and Turkish Utterances, Categorized as Speech only and Speech-Gesture Combination (S+G) as a Function of Caregiver (SD in parentheses)

	Lazuri			Turkish		
	Speech only	S+G	% S+G	Speech only	S+G	% S+G
Grandparents	165.9 (86.2)	51.2 (28.8)	33.4% (12.9)	65.0 (37.0)	13.9 (10.6)	24.4% (21.0)
Parents	176.1 (76.4)	63.5 (39.4)	37.5% (20.0)	77.6 (55.2)	17.1 (14.6)	24.2% (16.6)

To examine differences how caregivers coordinated their Lazuri and Turkish speech with deictic gestures, I conducted an ANOVA on the proportion of coordinated S+G input, with caregiver type (grandparent, parent) as a between-subjects factor, and language (Lazuri vs. Turkish) as a within-subjects factor. There was main effect of language, $F(1,60)=14.4$, $p<.001$, $\eta_p^2=.19$, indicating that caregivers more often use deictic gestures in combination with Lazuri utterances ($M=35.4\%$) than Turkish utterances ($M=24.3\%$). This finding supports the hypothesis that caregivers used deictic gestures to facilitate comprehension and reinforce the meaning of their Lazuri speech—a language less favored by their children. Excerpt (7), involving a 47-month-old boy with his 30-year old father (Ardas̄en-dialect), illustrates how a caregiver used various forms of deictic gestures to coordinate his Lazuri input. The father in (7) guides the play session in Lazuri. The son sets up the barn, asks questions in Turkish by holding up the object in question to receive feedback from his father who combines his deictic gestures, in particular pointing gestures, with instructions in Lazuri. Note that throughout this exchange, the father speaks Lazuri while his son responds in Turkish.

(7)

Father: <pointing> **him** **tude** **dodvi**
 that beneath put
 Put that beneath!

Boy: <showing> *bu* *ne?*
 this what
 What is this?

Father: <pointing> **tude**
 Beneath

Father: <pointing> **bere** **şkimi** **tude** **dodvi**
 child my beneath put
 My child put beneath!

Boy: <showing> *buni?*
 this-ACC
 This one?

Boy: <pointing> *buraya*
 Here

Father: <pointing> **heko**
 There

Excerpt (8) illustrates a 37-year-old mother using a combination of communicative means to ensure that her 39-month-old daughter comprehends her speech. Specifically, the mother reinforced her Lazuri utterances with deictic gestures, whereas her Turkish utterances were not accompanied by deictic gestures and primarily served to translate her Lazuri speech.

(8)

Mother: <showing> **ntsxeni**
 horse

Mother: *at*
 horse

Mother: <pointing> **hante** **kala** **istey-i!**
 these with play-IMP

Play with these!

Child: *bu nedur?*
this what
What is this?

Mother: <pointing> aha **oxori**
INJ house
Look, here is a house.

Mother: *ev ev*
house house

Mother: <showing> **oxori**
house

CHAPTER 6

Summary and Discussion of Study 1

In recent decades, globalization and increased access to technology and formal education have brought about conditions that make it difficult for indigenous communities to sustain traditional cultural practices and languages (Gorenflo, Romaine, Mittermeier, & Walker-Painemilla, 2012; Greenfield, 2009). Study 1 sought to encourage the use of Lazuri during caregiver-child interaction and measure language fluency of the AL within a community that is experiencing language loss. Maintaining AL at home has been long regarded as an important aspect of ethnic identification and participation in communal activities (e.g., Fishman, 1977; Phinney, 1990). Continuous support of children's active development of their AL and DL have shown beneficial outcomes in social and cognitive skills (e.g., Bialystok, Martin, & Viswanathan, 2005; Blom, Kuntay, Messer, & Verhagen, 2014; Brito, Grenell, & Barr, 2014; Carlson & Meltzoff, 2008; De Houwer, Bornstein, & Putnick, 2013; Genesee, Trucker, & Lambert, 1975; McCabe et al., 2013). Unfortunately, most Lazuri families are unaware of the beneficial effects of bilingualism or do not believe that the use of Lazuri enhances their children's opportunities in life and see it as a burden for their success at school. Indeed, recent efforts to teach Lazuri in regional public schools forced parents to make a choice between their child's study of Lazuri or English as a "foreign" language (Karaduman, 2013). Given the imminent circumstances of language extinction and the lack of Lazuri language input in caregiver-child interactions, I sought to encourage language maintenance by prompting caregivers to speak Lazuri to their children. At the same time, this language elicitation allowed me to study language fluency in the context of potential language loss.

To facilitate usage of Lazuri with children, I provided structured play contexts that fit within the daily cultural routines in Lazona (i.e., farming, serving tea), and recruited children who were not yet in school, but old enough to sit through play sessions, resulting in a sample of children of ages 12 to 48 months. I anticipated that caregivers would comply with instructions to speak Lazuri, but were uncertain as to whether the children would be capable of speaking the language. Specifically, I expected grandparents to be more fluent in Lazuri than parents based on the assumption of Fishman's model for intergenerational language transmission (1991). While, I expected children to produce more spontaneous speech in the DL (Meakins, 2008), I anticipated that caregivers would instruct their children to speak in Lazuri and model their AL input. Finally, I also expected caregivers to accompany their Lazuri speech with gesture to establish a common ground for effective communication with their young children (McNeil et al., 2000).

Research Question 1: Are there Generational Differences in Communication?

Lazuri children typically grow up in multi-generational households that rely on grandparents as primary caregivers. For this reason, I included both grandparent-child and parent-child dyads in the sample, as grandparents were often the only caregivers at home. Due to recent developments—improved roads that decrease the isolation of villagers, greater access to formal education in schools where Turkish is spoken, and technology, which provides access to the mainstream culture—I expected grandparents and parents to differ with respect to their educational backgrounds and language preferences. In the sample, parents had more years of formal education ($M=8.7$) than grandparents ($M=4.2$), yet parents and grandparents played and communicated with their children in similar ways. I found no evidence that grandparents spoke Lazuri to children to a greater extent than parents (grandparents produced on average 59.4% of their utterances in Lazuri in comparison to 57.9% for parents), although I observed grandparent-

child dyads to produce less talk overall than parent–child dyads. Moreover, grandparents were not more persistent in speaking Lazuri than parents. To the contrary, these two generations were very similar in terms of the bout lengths, i.e., the maximum number of consecutive utterances in in Lazuri, when communicating with their children. The biggest difference in language usage was observed when comparing the caregivers with the children, who clearly lacked Lazuri fluency and preferred to converse in Turkish.

Study 1 included grandparents because I regarded them as the language experts who grew up learning Lazuri from their own parents and transmitted the AL to their own children. I tried to replicate Fishman’s Stage 6 and believed that the grandparents would act as mentors and teach the language to their grandchildren. However, I did not find evidence that children interacting with grandparents produced more Lazuri than children interacting with parents. As a further analysis, I split the data by caregiver age, and compared the child-directed speech of caregivers under age 35 with caregivers over age 35 (this age was considered the cut-off age group for language fluency in Lazuri, as reported in Kutscher, 2008). This additional analysis showed no effect of caregiver age, $t(60) = .31, p = .731$, on language usage. There are several explanations for why generational differences were not observed. First, due to the recruitment strategy of recording whichever caregiver was at home with the child, parents and grandparents were not tested in interaction with the same set of children. Ideally, a future study would assess parents and grandparents at the outset for language fluency in Lazuri, and would examine generational differences within the same set of families. Second, each family participated in only one session, and generational differences may have been easier to observe over repeated sessions. Overall grandparent-child interactions involved less talk than parent-child interactions, which suggests

that some grandparents might have been shy or self-conscious, and may have found it difficult to engage in multilingual conversations while being recorded by a stranger.

It is important to emphasize that because interactions are bidirectional, the caregivers were no doubt influenced by the child’s verbal behavior, which made the task of speaking Lazuri challenging at times. Excerpt (9) conveys such difficulties, as reflected in the comments of a grandmother (Fındıklı-dialect), after being prompted to speak Lazuri with her 45-month-old grandson. The grandmother was clearly amused that she was mixing languages while interacting with her grandson, as indicated by her clapping and laughing in excerpt (9). Nevertheless, she emphasizes that even though she speaks Lazuri with her grandson, he will not speak Lazuri because his mother uses Turkish with him. Her comment acknowledges that she recognizes her daughter’s decision to use Turkish and its consequences for her grandson.

(9)

<claps, laughs>	ma	ti	<i>turkça</i>	heya	ķala	gegapaxi		
	I	also	Turkish	him	with	use-I-PST		
ma	haķo	<i>lazca</i>	bisinapam	da	haya	<i>ila</i>	var	isinapams
I	so	Lazuri	speak-I	INJ	him	yet	not	speak-he
nana-muři	isinapams	<i>ya</i>						
mother -his	speak-she	therefore						

I got used to speaking Turkish with him. I speak so much Lazuri and he, he will not speak at all, because his mother speaks (Turkish with him).

Research Question 2: Did Children Imitate the AL Input?

Prior to engaging in the AL elicitation task, caregivers self-reported that they no longer used the AL with their children who were accustomed to speaking Turkish. Nevertheless, the caregivers followed instructions to converse in the AL, and children practiced and modeled the input provided by their caregivers. Tomasello and colleagues (1993) view imitation as a form cultural learning, wherein children understand the intentions underlying a communicative act and

can reproduce the same act in similar circumstances for communicative purposes. Importantly, in the context of AL development, children who more often imitated Lazuri utterances were more likely to produce spontaneous Lazuri utterances, highlighting the important role of imitation as a mechanism for language acquisition. The children, who often seemed to understand Lazuri but showed a strong preference for speaking only Turkish, exhibited a range of communicative patterns, as has been reported in other samples of passively bilingual children (De Houwer, 1990). Some Lazuri children appeared to use an avoidance strategy, in which they persisted in speaking Turkish despite their caregivers communicating with them in Lazuri. Other children attempted to speak Lazuri, and often resorted to imitating their caregivers' usage; their reliance on imitation was also evident in mixed utterances where they added a Lazuri diminutive suffix or *-i* ending to a Turkish noun, as modeled by caregiver usage (see excerpt 6).

Question 3: Did Caregivers Facilitate AL Comprehension through Gesture Use?

More encouraging for AL maintenance prospects in Lazona were the efforts of primary caregivers to achieve mutual understanding by coordinating their speech with deictic gestures. Caregivers utilize a variety of nonverbal behaviors (e.g., conventional and deictic gestures) when communicating with young children. Gestures co-occurring with speech may facilitate comprehension, by reinforcing what was said or by adding new information (McNeil et al., 2000). This was evident in caregivers' usage of deictic gestures to show, offer, request, and point at the toy objects while speaking Lazuri with their children. Specifically, caregivers combined Lazuri utterances with deictic gestures more often than Turkish utterances to establish a common ground for effective communication. This finding underscores the importance of gestures in facilitating comprehension; that is, caregivers' deictic gestures appeared to function as a didactic

tool to reinforce comprehension of the AL by grounding their Lazuri utterances in the immediate context.

CHAPTER 7

Study 2

Indigenous Lazuri Enclave vs. Immigrant Turkish Enclave

AL support in an urban city like Berlin is very different than in rural Lazona. According to a recent census 32.4% of first graders do not speak German at home in a metropolis of 3.4 million people; 176,743 residents in Berlin share Turkish background of which 43% are naturalized Germans, making them the biggest minority ethnic group in Berlin (Statistischer Bericht, 2013; Willard et al., 2014; Pfaff, 1993). More than 4,000 students in Berlin with Turkish migration background are enrolled in schools, and Turkish is offered at 12 public and private institutions from 1st to 13th grade (Vieth-Entus, 2013). The availability of Turkish instruction in German schools highlights the fact that the Turkish-German community in Berlin has considerable supports outside of the home setting for dual language learning; such supports provide opportunities as well as encouragement for children to use the AL in their daily lives.

I continued to use the elicitation task from Study 1 and provided the same toy sets to dyads in the current Study 2 to investigate how parental language practices at home affected their children's AL usage. As was the case in Study 1, I expected Berlin parents to comply with instructions to speak in the AL with their children and expected Berlin children to show oral proficiency in their AL. Hence, I anticipated greater fluency in the AL among Berlin dyads than among age-matched Lazona dyads. Among caregivers, I expected to find lower rates of language mixing (codeswitching) in Berlin than in Lazona, as Berlin families were accustomed to using the AL with children at home.

To further examine how the features of child-directed speech differed by location (Lazona vs. Berlin), I coded each utterance for its functional use, using six categories

(command, deictic, question, label, comment, and invitation) based on previous coding criteria (Ninio, 1980; Ninio & Snow, 1988; Peirce, 1865/1982; Tomasello & Farrar, 1984).

These analyses also examined how the activity context (animal-farm vs. tea-party), participant (parents vs. children), and child age (16-46 months) contributed to the communicative exchanges, over and above the effects of location. Given the different cultures of Lazona and Berlin, I expected to see variation in child-directed speech as a function of location, with parents in Lazona using more commands, e.g., to control their child's behavior in front of a stranger and fewer questions, e.g., to quiz the child for information that the parent already knows, than parents in Berlin.

Method

Participants

To examine AL use in an immigrant sample, I recruited 12 young children and their parents from Kreuzberg, Berlin. For comparison, 12 parent-child dyads were selected from Study 1, by matching children from the larger Lazona sample in age and gender to children in Berlin, see Table 7 for sample characteristics. Parents in Berlin belonged to working class, whereas parents in Lazona were farmers. One child in Lazona and three children in Berlin had no siblings; all other children had at least one older sibling at home. Lazuri children were cared for at home by family members (typically grandparents) and had not yet attended school. All of the parents in Lazona reported that they used Lazuri (AL) in adult conversations; all but one reported that they spoke with their children only in Turkish (DL). This parent was also the only one who self-identified as more Lazuri than Turkish; the others described themselves as identifying equally as Lazuri and Turkish. Berlin dyads were recruited from the Kreuzberg enclave of Berlin, nicknamed since the 1960s as “Little Istanbul” or the “Turkish Ghetto” of Berlin

(Mandel, 1996). All of the Berlin children attended German daycare centers or preschools full time and their parents reported that they spoke only Turkish at home with all family members. Only two parents in Berlin self-identified as Turkish–German, whereas the others self-identified as more Turkish than German. The Berlin parents were mostly second-generation immigrants from rural areas of Turkey raising sequentially bilingual children, i.e., with firmly established usage of AL at home and DL at daycare before the age of 3. The majority of the Berlin parents (N=10) in this sample chose to marry a spouse from Turkey.

Table 7

Sample Characteristics of dyads in Lazona and Berlin (SD in parentheses)

Location	N	AL	DL	Child age (months)	Parent age (years)
Lazona	12	Lazuri	Turkish	29.0 (10.3) range 16-46	33.9 (6.3) 26-42
Berlin	12	Turkish	German	29.1 (9.3) range 16-46	36.6 (6.4) 29-47

Procedure

All parents filled out a brief demographic and language-use questionnaire. Dyads were provided with the same toy sets as in Study 1 (an animal-farm toy set and a tea-party toy set), and followed identical procedures. While engaged in play for the two 10-minute tasks, dyads were instructed to use their AL (rather than the DL) with the prompts: **Lazuri isinapi!** [Speak Lazuri!] in Lazona and *Türkçe konuş!* [Speak Turkish!] in Berlin.

Coding

Table 8 provides a description of the coding scheme for functional use of utterances, illustrated with Lazuri examples in bold and Turkish examples in italics.

Table 8

Categories of Functional Utterances with Examples in Lazuri, Turkish, and English

Type	Definition	Lazuri	Turkish	English
command	Person uses verb in the imperative form.	xolo <u>kodolob-i!</u>	<i>bir daha <u>koy!</u></i>	[again <u>pour</u>]
deictic	Person uses a pronoun or other deictic expression.	ha^ʒi hante <u>bozo-şkimi</u>	<i>şimdi bunlar <u>kız-ım</u></i>	[now these <u>daughter-mine</u>]
question	Person uses an interrogative form to query.	kochi <u>nakon?</u>	<i>adam kaç tane var?</i>	[<u>how many</u> men are there?]
label comment	Person labels object. Person comments on event, action, or object.	ham <u>puçi ren</u> <u>nako skva</u> <u>dadal-epe</u>	<i>bu <u>inek dir</u> <u>nekadar güzel</u> <u>oyuncak-lar</u></i>	[this is a <u>cow</u>] [what <u>beautiful</u> toy-s]
invitation	Person initiates a cooperative activity.	haşo gale <u>gogamir-at</u>	<i>böyle dışarıya <u>çıkartal-ım</u></i>	[like this, <u>let's</u> <u>take it outside</u>]

Results

Elicited Ancestral Language Use

Table 9 presents frequencies of utterances as a function of location and participant along with the mean percentages of utterances produced by parents and children in each language (AL, DL, ML). To examine overall differences in talkativeness, I conducted an ANCOVA on the total

frequencies of utterances, with location (Lazona, Berlin) as a between-dyad factor, participant (parent, child) as a within-dyad factor, and age as a covariate. This analysis yielded main effects of participant, $F(1,21)=51.4, p<.001, \eta_p^2=.71$, with parents producing more utterances ($M=398.0$) than their children ($M=100.0$). Age was a significant covariate, $F(1,21)=21.9, p<.001, \eta_p^2=.51$, and interacted with participant, $F(1,21)=24.8, p<.001, \eta_p^2=.54$: Whereas utterance frequencies increased with age for children, $r(N=24)=.74, p<.001$, utterance frequencies for parents did not vary as a function of child age, $r(N=24)=.13, p=.55$.

To examine AL use in each community, I ran an ANCOVA on the proportion of utterances in the AL with location as a between-dyad factor and participant as a within-dyad factor. Age was not a significant covariate and was removed from the model. AL use varied by location, $F(1,22)=118.9, p<.001, \eta_p^2=.84$, and participant, $F(1,22)=36.2, p<.001, \eta_p^2=.62$, with a significant interaction of location and participant, $F(1,22)=9.9, p=.005, \eta_p^2=.31$. As shown in Table 9, Lazona dyads used their AL less often than Berlin dyads, and children used the AL to a lesser extent than their parents. However, only the Lazuri children were unable to speak proficiently in their AL, and reverted to using the DL in about 87% of their utterances.

Table 9

Language Use by Location, Language, and Participant Across Context (including clean-up between activity contexts) (SD in parentheses)

Utterances		Lazona				Berlin			
		AL (Lazuri)	DL (Turkish)	ML	Total	AL (Turkish)	DL (German)	ML	Total
Frequency	Parent	240.5 (99.0)	103.7 (80.0)	58.2 (30.9)	402.4 (51.1)	376.2 (105.2)	10.9 (10.8)	6.2 (9.8)	393.3 (106.3)
	Child	12.8 (13.9)	84.3 (49.7)	1.8 (2.7)	98.9 (55.9)	85.7 (73.4)	11.1 (12.4)	4.9 (10.4)	101.7 (85.7)
Percentage	Parent	59.7% (21.8)	26.2% (20.1)	14.1% (6.4)		95.1% (5.6)	3.4% (4.5)	1.5% (1.7)	
	Child	11.7% (12.2)	86.6% (12.8%)	1.7% (2.3)		81.5% (19.7)	15.9% (19.4%)	2.6% (5.4)	

Excerpt (10) from a 24-month-old girl with her mother in Lazona illustrates codeswitching across conversational turns (Turkish shown in italics, Lazuri in bold). First the mother, speaking in Lazuri, invites the child to have tea. The child answers her in Turkish, and turn taking continues with the two speakers using different languages over successive utterances.

(10)

Mother: **çai** **opşvat.**
 tea drink-us
 Let's drink tea [out of these cups].

Girl: *doldu.*
 full-PARTICIPLE
 It's full.

Mother: **kodolob-i** **ha** **çai.**
 pour-IMP this tea
 Pour the tea.

Girl: *döküldi.*
spill-PARTICIPLE
It is spilled.

In contrast, excerpt (11) illustrates a conversation from a 34-month-old boy with his mother in Berlin, with both participants speaking the AL fluently.

(11)

Mother: *anne-nin* *parmak-ları* *çeşme* *olsun.*
mother-GEN fingers-PL fountain be
Mommy's fingers are going to be a fountain.

Boy: *açt-ım*
open-I
I turned it on.

Boy: *akıyo-r*
run-it
It is running.

Mother: *çok* *doldu-mu?*
very full-Q
It is already full?

In regard to Research Question 4 (role of parental language practices on AL), Berlin dyads produced higher frequencies of AL than Lazona dyads. As illustrated in Table 9, the interactions in Berlin were characterized by more monolingual (Turkish) talk than the interactions in Lazona, where parents and children engaged in language mixing.

Role of Culture and Context for Early Communication

Table 10 presents mean frequencies of utterances for parents and children in Lazona and Berlin as a function of activity context (animal-farm, tea-party). For analyses of activity context,

I excluded any utterances that occurred outside of toy play, i.e., during the transition period between activities.

Table 10

Percentages of Utterance Types by Activity Context, Location, and Participant (SD in parentheses). Each column of percentages sums to a 100%.

	Animal-Farm Context				Tea-Party Context			
	Lazona		Berlin		Lazona		Berlin	
	Parent	Child	Parent	Child	Parent	Child	Parent	Child
Mean	196.8	60.2	193.2	52.8	169.6	35.5	170.4	46.2
Frequencies	(36.9)	(37.4)	(50.1)	(43.6)	(40.0)	(22.2)	(47.6)	(41.4)
Command	23.0%	3.2%	11.3%	8.9%	39.4%	7.5%	14.9%	7.1%
	(9.7)	(3.0)	(8.4)	(15.1)	(7.6)	(6.6)	(8.1)	(8.8%)
Deictic	10.2%	32.5%	5.5%	26.3%	7.3%	28.3%	4.8%	36.9%
	(6.0)	(26.2)	(4.2)	(15.4)	(4.3%)	(29.9)	(3.9)	(31.1)
Question	24.5%	13.8%	35.8%	6.5%	21.1%	15.4%	33.5%	6.8%
	(6.1)	(15.7)	(13.9)	(7.7)	(10.6)	(15.5)	(10.7)	(6.8)
Label	19.8%	31.8%	14.1%	29.2%	3.6%	16.4%	4.3%	13.6%
	(8.2)	(17.3)	(5.8)	(26.9)	(3.2)	(13.6)	(2.2)	(11.3)
Comment	16.7%	15.3%	20.7%	22.5%	21.5%	26.8%	28.6%	32.4%
	(5.3)	(11.0)	(8.49%)	(14.4)	(9.2)	(13.4)	(13.6)	(19.4)
Invitation	5.8%	3.4%	12.6%	6.6%	7.1%	5.6%	13.8%	3.2%
	(4.8)	(4.0)	(6.3)	(8.9)	(4.7)	(7.2)	(13.3)	(4.9)

As a preliminary analysis to examine differences in talkativeness as a function of location (Lazona, Berlin), I conducted an ANCOVA on the utterance frequencies (see top row of Table 10), with location as a between-dyad factor, activity context and participant as a within-dyad factors, and age as a covariate. This analysis yielded a main effect of context,

$F(1,21)=9.76, p=.005, \eta_p^2=.32$, with participants producing more utterances in the context of the animal farm than in the tea party. The main effect of context on talkativeness did not interact with location, participant, or child age. The only other effects to reach significance were the main effects of participant and child age, with a significant interaction between these two factors: As described above, parents produced more utterances than their children, and children produced more utterances as they increased in age.

In Table 10, the distribution of utterance types is shown across activity contexts, presented as mean percentages of utterances in that context (i.e., each column of percentages sums to 100%). For each utterance type (command, deictic, question, label, comment, invitation), I conducted an ANCOVA with location as a between-dyad factor, activity context and participant as within-dyad factors, and age as a covariate. The dependent variable for each analysis was the proportion of utterances of a given type (e.g., commands). Below, I report the significant findings for each analysis; all remaining effects were not significant.

For commands, there were main effects of location, $F(1,22)=6.41, p=.019, \eta_p^2=.23$, and participant, $F(1,22)=69.42, p<.001, \eta_p^2=.76$, qualified by two-way interactions between location and participant, $F(1,22)=16.18, p=.001, \eta_p^2=.42$. As shown in Table 10, parents in Lazona used commands much more often than their children (parents: $M=31.2\%$ of utterances; children: $M=5.3\%$), and used commands more often than the parents ($M=13.1\%$) or the children ($M=8.0\%$) in Berlin. There was also a main effect of activity context, $F(1,22)=12.67, p=.002, \eta_p^2=.37$, qualified by two-way interaction of location and context, $F(1,22)=5.37, p=.002, \eta_p^2=.20$: Lazona dyads showed increased usage of commands in the tea-party context ($M=23.4\%$) in

comparison to animal farm (M=13.1%), whereas Berlin dyads did not (tea-party: M=11.0%; animal farm: M=10.1%).

For deictics, there was a main effect of location, $F(1,22)=5.1, p=.034, \eta_p^2=.19$, with dyads in Lazona producing more deictic expressions (M=39.2% of their utterances) than dyads in Berlin (M=36.4%). There were main effects of participant, $F(1,22)=49.90, p<.001, \eta_p^2=.694$, and context, $F(1,22)=7.86, p=.010, \eta_p^2=.26$, qualified by an interaction of participant and context, $F(1,22)=5.3, p=.032, \eta_p^2=.19$: Deictics comprised a greater percentage of child utterances (M=31.0%) than parental utterances (M=6.9%). Whereas children produced more deictics in the tea-party (M=32.6%) than in animal-farm (M=29.4%), parents did not (tea-party: M=6.1%; animal-farm: 7.9%).

For questions, there was a main effect of participant, $F(1,21)=58.8, p<.001, \eta_p^2=.74$, qualified by an interaction of location with participant, $F(1,21)=12.0, p=.002, \eta_p^2=.36$: Questions comprised a greater percentage of parental utterances (M=28.7%) than child utterances (M=10.6%). Whereas parents in Berlin produced more questions (M=34.7%) than parents in Lazona (M=22.8%), children showed the opposite trend, with more questions produced by children in Lazona (M=14.7%) than in Berlin (M=6.6%). Age was also a significant covariate, $F(1,21)=7.0, p=.015, \eta_p^2=.25$, and interacted with participant, $F(1,21)=4.4, p=.049, \eta_p^2=.17$. Questions as a percentage of total utterances increased with age for children, $r(N=24)=.49, p=.016$, but not vary as a function of child age for adults $r(N=24)=.18, p=.41$.

For labels, there were main effects of activity context, $F(1,22)=36.6, p<.001, \eta_p^2=.62$, and participant, $F(1,22)=17.5, p<.001, \eta_p^2=.44$: Labeling was more common in the animal-farm

context (M=23.7% of utterances in this context) than in the tea-party (M=9.5%), and comprised a greater percentage of child utterances (M=22.7%) than parental utterances (M=10.5%).

For comments there was a main effect of age, $F(1,21)=10.8, p=.004, \eta_p^2=.34$: As a percentage of total utterances, comments increased with age for children, $r(N=24)=.52, p=.009$; and as a function of child age for adults $r(N=24)=.57, p=.004$. There was a main effect of context, $F(1,21)=14.7, p=.001, \eta_p^2=.41$, qualified by an interaction of context and participant, $F(1,21)=7.23, p=.014, \eta_p^2=.26$. Comments were more common in the tea-party context (M=27.3% of utterances in this context) than in the animal farm (M=18.8%). In the tea-party context, comments comprised a greater proportion of children's utterances than parental utterances (children: M=29.6%; parents: M=25.1%); in the animal-farm context, children and adults produced comments at comparable rates (children: M=18.9%; parents: M=18.7%).

For invitations, there was a main effect of participant, $F(1,21)=30.7, p<.001, \eta_p^2=.59$, and an interaction of participant with age, $F(1,21)=11.1, p=.003, \eta_p^2=.35$. Invitations comprised a greater percentage of parental utterances (M=19.6%) than child utterances (M=9.5%). Invitations increased with age for children, $r(N=24)=.58, p=.003$, but did not vary as a function of child age for adults $r(N=24)=.37, p=.87$.

In sum, despite equivalence in talkativeness (i.e., utterance frequencies), Lazona and Berlin dyads differed with respect to the distribution of utterance types. Lazona dyads appeared to communicate in a more direct style than Berlin dyads, using more commands and deictic expressions, as illustrated in excerpt (12) in which a Lazuri mother uses a series of commands (IMP) to direct the play of her 39-month-old daughter.

(12)

Mother: **hak** **yodg-i!**
 there put-IMP
 Put [it] there! (command)

Girl: *bu* *çati.*
 this roof
 This [is a] roof. (label)

Girl: *buni* *buraya.*
 this there
 [I will put] this one there. (deictic)

Mother: **hak** **meşadv-i!**
 here place-IMP
 Put [it] here. (command)

In contrast, Berlin parents tended to use questions more often to engage their children, as illustrated in excerpt (13), involving a Berlin mother with her 40-month-old son. Interestingly, the increased amount of questioning by Berlin parents was not mirrored in their children's utterances, as Berlin children tended to ask proportionally fewer questions than their Lazona peers.

(13)

Mother: *ism-i* *ney-di* *bu-nun?*
 name-GENITIVE what-was this-POSSESSIVE
 What was the name of this one? (question)

Boy: *anne* *bu.*
 mom this
 Mom, this one. (deictic)

Mother: *bu-nun-mu?*
 this-POSSESSIVE-Q
 [The name] of this one? (question)

Boy: *bu* *köpek* *hex.*
 this dog hex
 This [is the] dog [named] Hex. (label)

Overall the results supported the hypothesis that each contact situation would be shaped by the community's cultural practices and beliefs about how to talk to children: The interactions in Lazona were characterized by higher frequencies of code switching, whereas the interactions in Berlin involved consistent adoption of AL by children as well as parents. Lazuri parents were observed to be more commanding in their speech style than Berlin parents, yet the children in the two communities tended to use language in functionally identical ways, with the majority of their utterances consisting of deictic expressions, labels, and comments. Although child age tended not to influence the speech styles of the caregivers in our sample, significant age-related increases in questions, comments, and invitations were evident in the children's language. Additionally, the results confirmed the role of the activity context in communicative patterns, with dyads using a greater number of referring expressions (labels and deictic expressions) in the animal-farm context, and more comments and commands in the tea-party context.

CHAPTER 8

Summary and Discussion of Study 2

Research in language contact situations shows variation in parental strategies for preparing children to enter formal education and the resulting bilingual experiences of their children (King, 2001, in King, Fogle & Logan-Terry, 2008; Kulick, 1993). Specifically, self-reports of language input at home account for individual differences in children's preferred language use and vocabulary (Cote & Bernstein, 2014; De Houwer, 2007). Attitudes towards the AL and early parental language practices are social constraints that affect the development of oral fluency in AL and create variation in the bilingual language experiences of children (e.g., De Houwer, 1998; De Houwer, Bornstein, & Putnick, 2013; Hoff, 2006). How to talk to children is a crucial factor in the maintenance of an AL, yet parental language practices have been mostly tested through self-reports and naturalistic observations focused more on how children differentiate languages (e.g., Nicoladis & Genesee, 1996) rather than examining the communicative behaviors of caregiver-child dyads when encouraged to interact in the AL. My approach to study AL fluency within two distinct enclaves (i.e., indigenous vs. immigrant) was driven by the alarming rate of language loss within indigenous communities. In contrast to immigrant enclaves, indigenous communities typically have low language status and less privilege due to a lack of governmental support. Consequently, they have to negotiate what is best for their children's future by adapting to the changing socio-economic landscapes of their ancestral lands. I used an elicitation task to examine how parents in language contact situations coordinate communicative exchanges with their young children in two different communities—one where the AL is endangered and acquired through overhearing, and the other where children grow up fully bilingual. I instructed Lazuri-Turkish dyads in Lazona and age-matched Turkish-

German dyads in Berlin to use their AL during social routines playing with familiar toy sets (e.g., animal-farm, tea-party).

Question 4: Do Parental Language Practices Shape Oral Fluency of AL?

Parents in the two communities differed in self-reported usage of their AL: As is typical in situations where ALs are critically endangered, Lazuri parents were no longer teaching Lazuri to their children and used Turkish with their children in order to prepare their children for entry into Turkish elementary schools. Their children's limited oral proficiency in Lazuri provided confirmatory evidence that children do not become bilingual simply by overhearing adult conversations in a AL, but require engagement with both languages (Genesee, Nicoladis, & Paradis, 1995; Snow et al., 1976). Lazuri children's reliance on the DL (Turkish) seemed to create a challenge for their parents to converse fully in Lazuri. Consequently, the interactions in Lazona were characterized by a mixture of Lazuri and Turkish, as attested in excerpt (14) by a Lazuri mother who takes note of her own **imṭanen** (mixing) and remarks with the use of an interjection (INJ) 'yahuu' [oh mine] that conversing 20 minutes in Lazuri was *çetin-i* (difficult).

(14)

Mother: *arada* **imṭanen.**
 in-between mixing
 I am mixing up the languages once in a while.

Mother: **ham** *ṣkunebura* **osinapu haḱu** *çetin-i* *ṣey-i* yahuu.
 this our own way talk very difficult thingINJ
 Oh mine, our way of talking is very difficult.

In immigrant communities like Kreuzberg, Berlin, the AL is valued as a means of cultural identification, and children grow up speaking a language at home that is different from the language of schooling and the majority culture (Cummins, 1979; García, 2008). Thus, in contrast to the Lazona families who were preparing their children for school entry, the Berlin families

were already sending their children to German-speaking day care centers and used Turkish as the primary language at home to maintain their cultural heritage. Berlin parents' emphasis on AL use within the family was a clear manifestation of their identity, as reflected in their comments that they felt more Turkish than German. Importantly, early access to German day-care ensured that the Berlin children would be "ready" to enter elementary schools, thus giving families the freedom to emphasize oral competence in the AL at home. Given the community's emphasis on Turkish identity and language use, I was not surprised to see the play interactions of the dyads in Berlin occurring predominantly in the AL.

Question 5: What are the cultural differences and similarities in early communication?

With respect to the observed frequencies of utterances, Lazuri parents and children were as talkative as their counterparts in Berlin. In both communities, the communicative exchanges were shaped by the activity context in similar ways. For example, in both locations, the animal farm context was associated with an increased use of deictic expressions to refer to specific toy animals, as shown in excerpt (15) involving a 45-month-old boy playing with his father in Ardaşen.

(15)

Father:	<command>	hay this Look at this one!	otsed-i look-IMP	aha! INJ
---------	-----------	---	----------------------------	-------------

Child:	<deictic>	<i>bu-raya</i> here-to To here.
--------	-----------	---------------------------------------

Father:	<command>	si you	dodv-i! put-IMP
---------	-----------	------------------	---------------------------

Father:	<deictic>	heko there [Put it] there.
---------	-----------	---

Boy:	<deictic>	<i>bu orda ol-maz</i> this there be-NEG This does not go there.	
Boy:	<deictic>	<i>zaten buraya</i> actually here This might work here.	<i>ol-ur</i> happen-FUT
Father:	<deictic>	<i>aha habuni-da buraya</i> INJ this-also here Look, this one [put] here.	
Father:	<deictic>	<i>haburiya</i> here [Put] here.	
Child:	<deictic>	<i>habunlari buraya</i> these here These come here.	
Father:	<command>	him tude dov-i that under put-IMP Put that underneath!	
Child:	<deictic>	<i>oraya</i> there [It will fit] there.	

Despite the fact that the parents and children in Lazona were code switching extensively across conversational turns, the conversations flowed naturally, with children for the most part seeming to understand what was being said as illustrated in excerpt (15): The boy uses a series of deictic expressions, particularly, demonstrative, whereas the father uses deictic expressions but guides his son's arrangement and uses in addition to the deictic forms commands. Berlin dyads also used more deictic expressions in the context of animal-farm, as illustrated in excerpt (16), involving a mother and her 40-month old son. In contrast to the father in excerpt (15), the mother in excerpt (16) uses questions to elicit responses from her son.

(16)

- Child: < deictic > *bu Hex*
this Hex
This [one is called] Hex.
- Mother < deictic > *sen-in Hex o*
your-POSS Hex that
That is [like] your Hex.
- Mother: <question> *bu-nlar uyu-mi -yacak-mi?*
this-PL sleep-NEG-FUT-Q
Won't they sleep?
- Child: < deictic > *burda*
here
[They will sleep] here.
- Mother: <question> *onlar in ev-ler-i burası -mi?*
their house-PL-POSS here-Q
- Child: <deictic> *burda*
here
[Yes, their house is] here.
- Mother: <deictic> *dışarda evet*
outside yes
[Correct, they will sleep] outside.

Although children across cultures communicated in similar ways, Lazuri parents tended to use a more direct style of communication with their children, which resulted in their producing more commands and deictic expressions, and fewer questions than Berlin parents. In prior research, such contrasting patterns of child-directed speech have been associated with distinct cultural values, e.g., with child-directed speech in collectivist societies characterized by the frequent use of imperatives (e.g., for Estonian: Tulviste & Raudsepp, 1997), and child-directed speech in individualist societies characterized by the frequent use of rhetorical questions (e.g., Bakeman & Adamson, 1984; DeLoache & DeMendoza, 1987; Goldfield, 1990). Heath (1983)

has argued that parent-child question-answer routines provide a teaching context that focuses on the child's current state or ability, which serves to prepare them for the scholastic model, where teachers expect children to respond to their questions. Although the Kreuzberg families came from a collectivist (Turkish) culture, their engagement with German society, and utilization of German daycare in particular, may have encouraged them to adopt a more western style of child-directed speech.

Unfortunately, I can offer only tentative hypotheses regarding factors that may have motivated the direct communication style of the Lazuri parents. One possibility is that the Lazuri parents may have had concerns that their children would not understand them when they spoke Lazuri. For example, after two minutes recording time, a Lazuri mother asked the researcher “*Arada turkçe buǰvari?*” [Could I sometimes repeat in Turkish?] for she believed that her 46-month-old son “*Lazuri var oxǰonu*” [did not understand Lazuri]. Indeed, parents sometimes addressed such doubts directly to their children, as illustrated in excerpt (17): A Lazuri mother asks her 39-month old daughter “*oxoǰonami?*” [do you understand?], after labeling the door of the toy barn. Ignoring the question, the child continues labeling in Turkish.

(17)

- Mother: aha **nekna nekna.** *habu*
 INJ door door. this
 Look, a door, this is a door. This one.
- Child: *kapi.*
 A door.
- Mother: **si** *lazca* **oxoǰo-nam-i** **bozo-ǰkimi?**
 you Lazuri understand-you-Q daughter-mine
 My daughter, do you understand Lazuri?
- Child: *habu pencere.*
 this window
 This is a window.

CHAPTER 9

General Discussion and Implication

Early social interactions with caregivers provide the input for emerging communicative structures in children, including, e.g., deictic gestures, as caregivers function as experts to scaffold the interactions to establish a common ground for meaningful communicative exchanges to take place and unfold (Bruner, 1971; Vygotsky, 1967). Within these adult-guided interactions, children learn to use language in interpersonal and societal contexts through modeling the expert input, while caregivers negotiate didactic exchanges in relation to cultural norms and parental language practices (e.g., Schieffelin & Ochs, 1986). Specifically, through adult instruction and guidance children internalize conventional communicative means and learn to master the language of their speech community within the ZPD (Vygotsky, 1978). This dissertation used an elicitation task to examine AL fluency across generations of speakers of a critically endangered language (Lazuri) and compared AL use in parent-child dyads across two differing cultural enclaves (Lazona vs. Berlin). Language enclave communities serve as natural experiments to study how parental language practices in language contact situations contribute to AL loss and maintenance. By instructing participants to speak in their AL (i.e., Lazuri in Lazona, Turkish in Berlin), the elicitation task served as a language assessment to measure AL fluency. Furthermore, encouraging caregivers to interact in Lazuri allowed me to examine the role of gesture in language scaffolding. For the Lazuri caregivers who typically used their AL only in adult-directed speech, the elicitation task provided a valuable language tool to test their fluency and persistence in using Lazuri in child-directed speech, as standardized language tests were not available. In return for Lazuri children, who were exposed to the AL through overheard speech, prompting to converse in the AL provided a critical test of whether they could engage with their

caregivers in the non-preferred language. In addition to the language measurement aspect, I used the elicitation task as a structured paradigm to study cross-cultural variation and similarities in parent-child interaction in language contact situations.

AL Loss versus AL Maintenance in Contact Situations

In language contact situations parents who grew up using an AL often have to make choices about the fate of AL transmission by negotiating resources and beliefs about what is best for their children's future. These beliefs are often embedded and driven by socio-economic and historical factors. Communal language practices contribute to AL loss or maintenance, affecting developmental pathways for bilingualism. When indigenous communities lack prestige and power they are motivated to assimilate to the majority culture and teach their children the DL (often the official language and the language of schooling in their country). In contrast to Turkish immigrant children in Berlin, who are exposed to AL at home, Lazuri children today grow up in the context of language loss, influenced by the perceived low status of Lazuri language in mainstream Turkish society and by the communal language practices. Based on Fishman's intergenerational language model (1991), I hypothesized that grandparents would function as the expert speakers of the AL, and would speak more fluently and with greater persistence in Lazuri in comparison to parents. Contrary to this hypothesis, the frequency of AL input to young children across generations of caregivers did not differ. The grandparents in my sample were not more fluent or persistent in AL production than their own children (i.e., parent generation) when communicating with children, but rather seemed to conform to the child rearing practices set forth by the parent generation.

With increased access to education enabling wider contact with the mainstream culture and lack of governmental support to preserve Lazuri, Lazuri parents may feel it necessary to

prepare their children for the world outside of the Lazuri villages. Such societal changes transform social routines and habits in communicative exchanges and contribute to the disruption of AL transmission. While the parent generation self-reported that they still conversed in Lazuri with their own parents (i.e., grandparent generation), they had departing from their oral tradition and were no longer transmitting the AL to their children. The loss of the AL in child-directed speech is to some extent associated with a communities' overall transformation and worldview, as illustrated in excerpt (18), involving a Lazuri 67-year-old grandmother playing with her 21-month-old grandson. She talked about societal changes to herself, i.e., thinking aloud about how Lazona has changed, while engaging directly with the child.

(18)

<herself> *eveli ne çekey-duk.... ey gidi gün-ler...*
 past what suffer-we-PAST.... oh gone day-PL
 Life was tough back then... those were the days...

<child> aha **oşv-i** **çona-şkimi** **oşv-i** ha!
 INJ drink-IMP light-POSS drink-IMP INJ
 Here, drink my darling, drink!

<herself> **mutu va, xatir sayibi...**
 nothing no sake owners...
 No more [are there] people for the sake of others' well-being

<child> **hamu ti kovedv-i hako!**
 this also put-IMP here.
 Put this also here!

<herself> *eveli xatir sayibi bikom-ti dünya...*
 past sake owner make-I-PAST world....
 In the past I was [helping out others] out of respect, [but] the world [has changed]

pici motveri dyne kochi ti nena var mepcamp-ti
 mouth covered so men also language not give-I-PAST
 I used to cover my mouth not to talk with strange men.

In the grandmother’s narration in (18) we find features of uncompleted thoughts but get the gist that she is comparing current Lazona with *eveli* [past] Lazona where she grew-up as a young woman **pici motveri** [covered mouth], secluded from the outside *dunya* [world]. The urbanization process have shown its toll on Lazuri family values of being a conscious **xatiri sahibi** [respect to others]— a term that includes the notion of respect, behalf of others, and welfare, which can be used synonymously to refer to interdependence. Those strong ties with the community are now being pushed towards more openness to other cultures, as in interacting “with strangers”, thus allowing change in the transmission of the ancestral **nena** [language]. Consequently, as this dissertation indicates, the cultural transmission of Lazuri is severely disrupted and driven by parental language practices towards the teaching of the DL to better prepare their young children for school.

Implications for Ancestral Language Maintenance

Parents in Berlin valued their Turkish background, and this was evident in how they felt about where they lived. Growing up in Berlin, the children in my sample had ample opportunities to use their AL both at home and when socializing with other members of the Kreuzberg community, while simultaneously learning German in daycare or preschool. Whereas Berlin children’s AL fluency was evident in their spontaneous speech, Lazuri children’s lack of AL fluency was largely dependent on their imitating caregiver usage. Although Lazuri parents no longer taught their AL to their children, they also valued their Lazuri heritage: They lived in concentrated Lazona settlements and were employed in the traditional agricultural economies of tea farming and hazelnut production. At the same time, they reported an urgency of needing to prepare their children for the mainstream culture in which Lazuri was not officially acknowledged. Lazuri parents were concerned that their children would speak Turkish with an

accent at the time of school entry, which would hinder their future career perspectives, as illustrated in a father's comments in excerpt (19):

(19)

'Istanbul türkçesi' **zoḡonan** *ya* **heṣo** **isinapare** **dore** **dulya** **gaḡiren.**
Istanbul Turkish say-they like so speak have work see
They say, you have to speak the high Turkish like the Istanbul Turkish to find work.

ḡai **dulya** **oziruṣeni** *mekṭeb-epe* **iḡitxare** *universite* **iḡitxare.**
good work finding school-PL studying university studying
In order to find a good job you have to go to school and study.

ḡai *mesle-xi* **giḡuṡasen** *diksyon-i* **ḡai** **ṡasen.**
good profession must diction well be
In order to have a good profession you have to have a good diction.

As an indigenous language, Lazuri is exposed to enormous pressure from Turkish, the language of educational, economical, and cultural prestige and the required means of engagement with the broader Turkish society. To overcome parents' concerns about the costs of speaking Lazuri with their children at home requires interventions that demystify dual-language learning—for example, by educating families about the value of bilingualism for their child's social and cognitive development, and providing support for ancestral language preservation efforts at schools. In a recent and extensive social report, McCabe and associates (2013) have stressed that fluent input in the child's native language transfers to a second or third language and helps to enhance their early literacy skills. Longitudinal studies among various immigrant groups in the United States suggest that these skills might even transfer into later years, with bilingual youth, who synthesize both worlds, being more likely to succeed in school than immigrant youth who have not retained their heritage culture at home (Feliciano, 2001; Golash-Boza, 2005). For Lazona families, parental investment into their children's bilingualism is of urgent necessity to slow down the process of language loss and extinction. Whether the

presumed benefits of bilingualism can convince parents to teach Lazona to their children in the context of perceived stigma remains unknown.

Limitation and Direction for Future Research

The present study addressed the need to study children's language development in language enclaves (Cote & Bornstein, 2014; Eisenbeiss, 2006). Further, it also addressed the need to study how parental language practices affected AL competence in children during caregiver-child interactions (King, Fogle, Logan-Terry, 2008).

None of the Lazuri adults were tested for their proficiency in Lazuri or Turkish, partly due to the fact that such language measure were lacking and partly that this was an exploratory study and a first one to examine AL during grandparent-child interaction versus parent-child interactions in an endangered language community. Thus, the next steps entail preparing a language measure to test for child and adult language comprehension. Meakins & Wigglesworth's (2012) test of passive knowledge might be a model to test for children's vocabulary knowledge. With over 1,200 minutes of recorded speech from Lazuri-Turkish dyads, I have sufficient data to create items for a future vocabulary comprehension assessment.

I acknowledge that I studied only specific communities— i.e., context of language endangerment in Lazona, Rize and in the context of immigrant population in Kreuzberg, Berlin, thus my results can be only generalized to specific contact language situations and languages. More research in various dual language communities is needed to understand the developmental pathways for becoming bilingual. Importantly, the use of the same set of structured activities for parent-child interaction provides a strong methodology for comparing the quality of child-directed speech across communities, as communicative patterns change in relation to the affordances of the toys.

Facing the context of language endangerment in the Lazuri community, my motivation in using an elicitation task was to set-up a model that might be used for future intervention studies to test whether language prompting within context of caregiver-child play would encourage caregiver-child usage of the AL, for the sake of language preservation. However, due to lack of a follow-up study and an actual free play data for each family without any language instruction, I cannot say whether my encouragement to use the AL had any effect. Based on self-report that caregivers no longer spoke to their children in Lazuri, the elicitation task was successful in bringing the level of Lazuri usage up to 60% of the input. These numbers are promising and suggest that interventions to reverse language loss might be effective if they engage families in AL use in the context of playful social routines. The encouragement to interact in Lazuri allowed caregivers to try out something new, which potentially helped them gain insights into their children's language capacities through first-hand experience.

Future Directions in Preserving Endangered Languages

Fishman's GIDS (1991) might give a framework to preserve the future of Lazuri (see Table 1). In my dissertation I tried to apply the GIDS to the Lazuri context and tried to encourage the usage of Lazuri with children to establish interactions for Stage 6. Despite the short play interactions, caregivers in Lazona showed that it is possible to teach Lazuri to their children if they become persistent in their Lazuri input and start to use Lazuri as child-directed speech. It only needed a little encouragement for 20 minutes to elicit 60% of AL when interacting with children during social routines. This number is promising and stresses the importance of language habits to be addressed within the nuclear family to immerse children in AL transmission. Although Lazuri is on the verge of extinction at Stage 7, the current parent generation has an advantage to transmit their AL to their children because they live in

communities where elders are still alive but more importantly, the Lazuri community as a whole must learn to use Lazuri as child-directed speech. At the same time the Lazuri community also needs to accept that Lazuri has a written script and use it effectively throughout the community in written as well as oral forms. Hence, future directions for the maintenance of Lazuri not only involve oral but also written transmission.

Pedagogical teaching materials, such as books and posters, are needed to further efforts to encourage families to use the AL at home with children to establish Lazuri vitality for Stage 5. Developing Lazuri children's books as language learning tools to be used at home has the potential to 1) preserve the Lazuri culture by using a newly developed alphabet and 2) promote literacy in reading and writing in early caregiver-child activities. With the help of the Endangered Language Fund, I have developed Lazuri child stories in print and as e-books (see Appendix B). The e-book project uses "talking stories" as a crucial tool for language revitalization efforts and comes at a time when access to the Internet is changing the nature of society by increasing the community's reliance on the DL. The talking stories are meant to promote literacy in reading and writing in early caregiver-child interaction. Access to these digital books can help caregivers to first learn how to read in their indigenous oral language and then transmit this knowledge to their children. Caregivers intimidated about reading in their mother tongue can listen to the talking stories to prepare for the reading with their children during offline quality time. Research (Bus, Van Ijzendoorn, & Pellegrini, 1995) shows that joint picture-book readings mediated by caregivers enhance language development in children and fosters joint engagement. In addition to the language aspect, the content of the Lazuri books reflects cultural practices as the basis for storytelling to enhance a sense of belonging and community pride while building confidence in using Lazuri. Most importantly, the purpose of

these pedagogical language materials is to nurture the Lazuri language at a time when it is most critical: before children enter school. Unfortunately, because Turkish schools do not use Lazuri as a language of instruction, children who engage in AL use at home will still experience pressure to use the DL as they enter school.

Digital projects take advantage of the growing power of the Internet, which allows for a hybrid environment for learning, teaching, archiving, and preserving cultural knowledge, i.e., transmission of ancestral languages. The published books are available in print as well as online and hopefully will inspire diverse endangered language communities to use in addition to the conventional way (i.e., reading print material) innovative ways to tell their stories, such as creating adaptations of traditional ways that fit with contemporary life styles. The Internet expands our understanding of linguistic diversity and human creativity by creating simple projects, such as short voiced videos that teach about an indigenous community experiencing language loss, yet at the same time offer innovative ways to be involved in the language preservation movement.

Conclusion

In conclusion, this dissertation sought to answer five research questions pertaining to the patterns of caregiver-child interactions within an endangered oral language community (i.e., Lazona) and across two language enclaves (i.e., Lazona vs. Berlin). In the context of language loss within the Lazuri community, grandparents and parents showed a willingness to transmit their AL and adopted similar didactic tools, i.e., instructing children to imitate the AL, using more AL+gesture than DL+gesture combination, to foster mutual understanding and achieve effective communication. When AL usage was encouraged, children modeled the input and used imitation as a communicative strategy to develop emerging communicative skills for AL usage.

Moreover, the data also suggest that deictic gestures play an integral part for language comprehension when the older and the younger generation differ in language preference.

In comparing AL use in indigenous and immigrant enclaves, the data suggest that parental language practices are critical to the maintenance of AL at home. Restricting AL input to overheard adult-directed speech (as in Lazona) sets the stage for language loss in favor of the DL and diminishes chances for children to develop dual language skills. Unless, caregivers start to provide more Lazuri input to their children, the current generation of children lacking AL proficiency will be unable to transmit AL to their own children, resulting in the loss of the AL to future generations (Fishman, 1991).

Finally, in comparing cross-culture parent-child interactions the data suggest that parents used differing communicative strategies based on the AL fluency of their children. Lacking early AL fluency seemed to require more directive speech in parental input (as in Lazona), whereas possessing early AL fluency seemed to elicit more questions in parental input (as in Berlin). Despite cultural variation in child-directed speech, children's early communicate responses were similar across cultures and characterized by heavy reliance on deictic expressions to ground communication in the immediate context.

Appendix

Appendix A

Parental Questionnaire on Language Development in Children

We invite you to take part in the following questionnaire about communicative development. We are collecting behavioral and speech data during social interactions of children with their family members. The survey consists of eight questions that should take no more than 5 minutes total to complete. Participation is completely voluntary. All responses are kept confidential and anonymously. You have a right to refuse to participate without consequences. You may refuse to answer any specific question and you may quit at any time.

SURVEY ID: _____

Date: _____

- 1) What is your language status? Please check and provide the language(s)
 - a) monolingual _____
 - b) bilingual _____

- 2) Which language(s) do you speak with your child or children?

- 3) Which language(s) do you speak with your parents?

- 4) Which language(s) do you speak with your spouse?

- 5) Who takes care of your child most of the time?

- 6) Which language(s) do they speak with your child?
- 7) Which one do you feel more close to?
 - a) minority culture
 - b) majority culture
 - c) mixed culture

- 8) Question for demographic purposes
 - a) Gender: male female
 - b) Your Birth Year: 19 _____
 - c) Years of Education: _____
 - d) Occupation: _____
 - e) How many hours do you work? _____
 - f) Number of Children: _____
 - g) Age(s) and Gender(s) of Children in the Family:

Appendix B

Citation for printed Lazuri child stories:

Yuksel-Sokmen, P. O. & Wei, S. (2014). *Çai pşvat [Let's Drink Tea]*. Istanbul: Lazi Kültür Yayınları.

Yuksel-Sokmen, P. O. & Wei, S. (2014). *Porçoni k'at'u [Dressed-up Kitty]*. Istanbul: Lazi Kültür Yayınları.

Url of e-books

(https://www.youtube.com/channel/UCR8zWteZAJEjvXjvjIkyhg/feed?activity_view=3).

References

- Adesope, O. O., Lavin, T., Thompson, T., & Ungerleider, C. (2010). A systematic review and meta-analysis of the cognitive correlates of bilingualism. *Review of Educational Research, 80*(2), 207-245. DOI: 10.3102/00346543055003269.
- Aksoy, A., & Robins, K. (1997). Peripheral vision: cultural industries and cultural identities in Turkey. *Paragraph, 20*(1), 75-99. DOI:10.1068/a291937.
- Anderson, R. D. (1978). A grammar of Laz. (Unpublished doctoral dissertation). Univeristy of Ann Arbor, Michigan.
- Bakeman, R., & Adamson, L. B. (1984). Coordinating attention to people and objects in mother-infant and peer-infant interaction. *Child Development, 55*(4), 1278-1289. DOI:<http://www.jstor.org.ezproxy.gc.cuny.edu/stable/1129997>.
- Bates, E., Benigni, L., Bretherton, I., Camaioni, L., & Volterra, V. (1977). From gesture to the first word: On cognitive and social prerequisites. In M. Lewis and L. Rosenblum (eds), *Interaction, conversation, and the development of language*, 247-307. New York: John Wiley. DOI:10.1037/0012-1649.33.3.429
- Bialystok, E., Martin, M.M., & Viswanathan, M. (2005). Bilingualism across the lifespan: the rise and fall of inhibitory control. *International Journal of Bilingualism, 9*, 103–119. DOI:10.3389/fpsyg.2014.01369.
- Brendemoen, B. (2006). Aspects of Greek-Turkish language contact in Trabzon. In H. Boeschoten & L. Johanson (Eds.), *Turkic languages in contact* (pp. 63-73). Wiesbaden: Harrassowitz Verlag

- Brito, N. H., Grenell, A., & Barr, R. (2014). Specificity of the bilingual advantage for memory: examining cued recall, generalization, and working memory in monolingual, bilingual, and trilingual toddlers. *Frontiers in Psychology, 5*, 1369. DOI:10.3389/fpsyg.2014.01369.
- Blom, E., Küntay, A. C., Messer, M., Verhagen, J., & Leseman, P. (2014). The benefits of being bilingual: Working memory in bilingual Turkish–Dutch children. *Journal of Experimental Child Psychology, 128*, 105-119. DOI:10.1016/j.jecp.2014.06.007.
- Brown, P. (1998). Conversational structure and language acquisition: The role of repetition in Tzeltal. *Journal of Linguistic Anthropology, 8*(2), 197-221. DOI: 10.1525/jlin.1998.8.2.197.
- Bruner, J. S. (1971). *The relevance of education*. New York: W. W. Norton.
- Bruner, J. S. (1983). *Child's talk: Learning to use language*. New York: W. W. Norton.
- Bus, A. G., Van Ijzendoorn, M. H., & Pellegrini, A. D. (1995). Joint book reading makes for success in learning to read: A meta-analysis on intergenerational transmission of literacy. *Review of Educational Research, 65*(1), 1-21. DOI:10.3102/00346543065001001.
- Carlson, S. M., & Meltzoff, A. N. (2008). Bilingual experience and executive functioning in young children. *Developmental Science, 11*(2), 282-298.
- Carpendale, J. I., & Carpendale, A. B. (2010). The development of pointing: From personal directedness to interpersonal direction. *Human Development, 53*(3), 110-126.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Hillsdale, NJ: Erlbaum.
- Cote, L., & Bornstein, M. (2005). Child and mother play in cultures of origin, acculturating cultures, and cultures of destination. *International Journal of Behavioral Development, 29*(6), 479-488. DOI:10.1080/01650250500147006.

- Crain-Thoreson, C., Dahlin, M. P., & Powell, T. A. (2001). Parent-Child Interaction in Three Conversational Contexts: Variations in Style and Strategy. *New Directions for Child and Adolescent Development*, 2001(92), 23-38.
- Cummins, J. (1979). Linguistic interdependence and the educational development of bilingual children. *Review of Educational Research*, 49(2), 222-251.
DOI:10.3102/00346543049002222
- Cummins, J. (2000). *Language, power, and pedagogy: Bilingual children in the crossfire* (Vol. 23). Multilingual Matters.
- DeLoache, J., & DeMendoza, O. A. P. (1987). Joint picturebook interactions of mothers and 1-year-old children. *British Journal of Developmental Psychology*, 5, 111-123. DOI: <http://dx.doi.org/10.1111/j.2044-835X.1987.tb01047.x> .
- De Houwer, A. (1998). Environmental factors in early bilingual development: The role of parental beliefs and attitudes. In G Extra & L. Verhoeven (Eds.). *Bilingualism and Migration*, (75-96). Berlin: Walter de Gruyter & Co.
- De Houwer, A. (2007). Parental language input patterns and children's bilingual use. *Applied Psycholinguistics*, 28(03), 411-424. DOI:10.1017.S0142716407070221.
- De Houwer, A., Bornstein, M. H., & Putnick, D. L. (2013). A bilingual–monolingual comparison of young children’s vocabulary size: evidence from comprehension and production. *Applied Psycholinguistics*, 1-23. DOI:10.1017/SO142716412000744.
- Delaney, H. D., & Maxwell, S. E. (1981). On using analysis of covariance in repeated measures designs. *Multivariate Behavioral Research*, 16(1), 105-123.

- Eisenbeiss, S. (2006). Documenting Child Language. In Peter K. Austin (ed.), *Language Documentation and Description*. (pp. 106-140), London: Soas, The Hans Rausing Endangered Languages Project.
- Enfield, N. J. (2001). Lip-pointing: A discussion of form and function with reference to data from Laos. *Gesture*, 1(2), 185-211. DOI:10.1075/gest.1.2.06enf.
- Feliciano, C. (2001). The benefits of biculturalism: Exposure to immigrant culture and dropping out of school among Asian and Latino youths. *Social Science Quarterly*, 82(4), 865-879. DOI:<http://www.jstor.org.ezproxy.gc.cuny.edu/stable/42955765>.
- Fillmore, L. W. (1991). When learning a second language means losing the first. *Early Childhood Research Quarterly*, 6, 323-346.
- Fillmore, L. W. (2000). The loss of family languages by immigrant children: Should educators be concerned? *Theory into Practice*, 39, 203-210. DOI: 10.1207/s15430421tip3904_3.
- Fishman, J. A. (1977). Language and ethnicity. In H. Giles (Ed.), *Language, ethnicity and intergroup relations* (pp. 15-57). London, New York and San Francisco: Academic Press.
- Fishman, J. A. (1991). *Reversing language shift: Theoretical and empirical foundations of assistance to threatened languages*. Clevedon, UK: Multilingual Matters.
- Fishman, J. A. (2001). *Can threatened languages be saved? Reversing language shift, revisited: A 21st century perspective*. Clevedon, UK: Multilingual Matters.
- Genesee, F., Tucker, G. R., & Lambert, W. E. (1975). Communication skills of bilingual children. *Child Development*, 46(4), 1010-1014. DOI:<http://www.jstor.org.ezproxy.gc.cuny.edu/stable/1128415>

- Genesee, F., & Nicoladis, E. (2007). Bilingual first language acquisition. In E Hoff & M Shatz. *Handbook of Language Development*, (324-342). Blackwell Publishing Ltd.
DOI:10.1002/9780470757833.ch16
- Genesee, F., Nicoladis, E., & Paradis, J. (1995). Language differentiation in early bilingual development. *Journal of Child Language*, 22, 611-632.
DOI:10.1017/S0305000900009971.
- Glück, H. *Metzler lexikon sprache*. Stuttgart/Weimar:Metzler.
- Goldin-Meadow, S., Nusbaum, H., Kelly, S. D., & Wagner, S. (2001). Explaining math: Gesturing lightens the load. *Psychological Science*, 12(6), 516-522. Doi:10.1111/1467-9280.00395
- Goldfield, B. A. (1990). Pointing, naming, and talk about objects: Referential behaviour in children and mothers. *First Language*, 10, 231-242.
- Göncü, A., & Gaskins, S. (Eds.). (2007). *Play and Development: Evolutionary, Sociocultural, and Functional Perspectives*. Mahwah, NJ: LEA.
- Gonzalez-Ferrer, A. (2006). Who do immigrants marry? Partner choice among single immigrants in Germany. *European Sociological Review*, 22(2), 171-185. DOI:10.1093/esr/jci050.
- Grenoble, L. A., & Whaley, L. J. (2006). *Saving languages: An introduction to language revitalization*. Cambridge University Press.
- Hall, S., Rumney, L., Holler, J., & Kidd, E. (2013). Associations among play, gesture and early spoken language acquisition. *First Language*, 33, 294-312.
- Heath, S. B. (1983). *Ways with words: Language, life and work in communities and classrooms*. Cambridge University Press. Retrieved

from:<http://isites.harvard.edu/fs/docs/icb.topic1317532.files/09-10/Heath%201983%20Ch%203.pdf>

- Harres, A. (1989). 'Being a good German': A case study analysis of language retention and loss among German migrants in north Queensland. *Journal of Multilingual & Multicultural Development*, 10(5), 383-399. DOI:10.1080/01434632.1989.9994385.
- Hodapp, R. M., Goldfield, E. C., & Boyatzis, C. J. (1984). The use and effectiveness of maternal scaffolding in mother-infant games. *Child Development*, 55, 772–781.
- Hoff, E. (2006). How social contexts support and shape language development. *Developmental Review*, 26(1), 55-88. DOI:10.1016/j.dr.2005.11.002.
- Hoff-Ginsberg, E. (1991). Mother-child conversation in different social classes and communicative settings. *Child Development*, 62(4), 782-796. DOI:10.1111/j.1467-8624.1991.tb01569.x.
- Hornberger, N. H. (1998). Language policy, language education, language rights: Indigenous, immigrant, and international perspectives. *Language in Society*, 27(04), 439-458. DOI:10.1017/S0047404500020182
- Imer, K. (1997). Türkçe-Lazca konuşan ikidillilerde kod değiştirimi. In: Imer K, Uzun E (eds.) Proceedings of the VIII th International Conference on Turkish Linguistics, pp. 275-283. Ankara: Ankara University. DOI:10.1080/01690960701307348.
- Iverson, J. M., & Goldin-Meadow, S. (2005). Gesture paves the way for language development. *A Psychological Science*, 16, 367–371. DOI:10.1111/j.0956-7976.2005.01542.x.
- Kamo, Y. (1998). Asian grandparents. In M. E. Szinovacz (ed.) *Handbook of grandparenthood*. (pp. 97–112). Westport, CT: Greenwood Press.

- King, V., & Elder Jr, G. H. (1995). American children view their grandparents: Linked lives across three rural generations. *Journal of Marriage and the Family*, 165-178.
DOI:<http://www.jstor.org.ezproxy.gc.cuny.edu/stable/353825>
- King, K.A., & Fogle, L. (2006). Bilingual parenting as good parenting: Parents' perspectives on family language policy for additive bilingualism. *International Journal of Bilingual Education and Bilingualism*, 9(6), 695-712. DOI:10.2167/beb362.0.
- King, K. A., Fogle, L., & Logan-Terry, A. (2008). Family language policy. *Language and Linguistics Compass*, 2(5), 907-922. DOI: 10.1111/j.1749-818X.2008.00076.x.
- Kojima, G. (2003). *Laz sarkilari* [Lazuri songs]. Istanbul: Chiviyazilari.
- Kuhl, P. K., Tsao, F. M., & Liu, H. M. (2003). Foreign-language experience in infancy: Effects of short-term exposure and social interaction on phonetic learning. *Proceedings of the National Academy of Sciences*, 100(15), 9096-9101.
- Kuhl, P. K. (2004). Early language acquisition: Cracking the speech code. *Nature Reviews Neuroscience*, 5, 831-843.
- Kulick, D. (1993). Growing up monolingual in a multilingual community: How language socialization patterns are leading to language shift in Gapun Papua New Guinea. In ed. by K Hyltenstam & A Viberg (Eds.), *Progression and regression in language* (94–121). Cambridge, UK: Cambridge University Press.
- Kutscher, S., & Genç, N. S. (1998). Ardeşen narrates-Ardeşeni na isinapinenpe (Vol. 14). Lincom Europa.
- Kutscher, S. (2008). The language of the Laz in Turkey: Contact-induced change or gradual language loss? *Turkic Languages*, 12(1), 82-102.

- Kutscher, S. (2010). When 'towards' means 'away from': The case of directional-ablative syncretism in the Ardeşen variety of Laz (South-Caucasian). *STUF-Language Typology and Universals Sprachtypologie und Universalienforschung*, 63(3), 252-271.
- Lacroix, R. (2010). Benefactives in Laz. *Benefactives and Malefactives: Typological Perspectives and Case Studies*, 92, 271-294.
- Lewis, M. P., & Simons, G. F. (2010). Assessing endangerment: Expanding Fishman's GIDS. *Revue roumaine de linguistique*, 2, 103-119. Retrieved from <http://www-01.sil.org/~simonsg/preprint/EGIDS.pdf>.
- Lewis, G. (1999). *The Turkish language reform: A catastrophic success*. Oxford University Press.
- Li, X. (1999). How can language minority parents help their children become bilingual in a familial context? *Bilingual Research Journal*, 23(2&3), 211-224.
- Lieven, E., & Stoll, S. (2013). Early communicative development in two cultures: A comparison of the communicative environments of children from two cultures. *Human Development*, 56(3), 178-206. DOI: 10.1017/S0305000913000135.
- Liszkowski, U., Carpenter, M., & Tomasello, M. (2008). Twelve-month-olds communicate helpfully and appropriately for knowledgeable and ignorant partners. *Cognition*, 108(3), 732-739.
- Logan, J. R., Zhang, W., & Alba, R. D. (2002). Immigrant enclaves and ethnic communities in New York and Los Angeles. *American Sociological Review*, 67(2), 299-322.
- Lyon, J., & Ellis, N. (1991). Parental attitudes towards the Welsh language. *Journal of Multilingual and Multicultural Development*, 12(4), 239-251.
DOI:10.1080/01434632.1991.9994461

- Lyon, J. (1991). Patterns of parental language use in Wales. *Journal of Multilingual & Multicultural Development*, 12(3), 165-181. DOI:10.1080/01434632.1991.9994456
- Mandel, R. (1996). A place of their own. In B.D. Metcalf (Ed.), *Making Muslim space in North America and Europe* (pp. 147-166). Los Angeles, CA: University of California Press.
- Meakins, F. (2008). Unravelling languages: Multilingualism and language contact in Kalkaringi. In J. Simpson & G. Wigglesworth (Eds.), *Children's language and multilingualism: Indigenous language use at home and school* (pp. 283-302). London: Continuum.
- Meakins, F., & Wigglesworth, G. (2013). How much input is enough? Correlating comprehension and child language input in an endangered language. *Journal of Multilingual and Multicultural Development*, 34(2), 171-188.
- McCabe, A., Tamis-LeMonda, C. S., Bornstein, M. H., Cates, C. B., Golinkoff, R., Guerra, A. W.,... Song, L. (2013). Multilingual children: Beyond myths and towards best practices. *Social Policy Report, Society for Research in Child Development*, 27(4), 2-37.
- McNeil, N. M., Alibali, M. W., & Evans, J. L. (2000). The role of gesture in children's comprehension of spoken language: Now they need it, now they don't. *Journal of Nonverbal Behavior*, 24(2), 131-150.
DOI:<http://dx.doi.org.ezproxy.gc.cuny.edu/10.1023/A:1006657929803>
- Nadel, J., Guerini, C., Peze, A., & Rivet, C. (1999). The evolving nature of imitation as a format for communication. In J. Nadel & G. Butterworth (Eds.), *Imitation in infancy* (pp. 209-234). Cambridge: Cambridge University Press.
- Nelson, K. (1981). 5 Social cognition in a script framework. In J. H. Favell & L. Ross (eds.) *Social cognitive development: Frontiers and Possible Futures*, (97-118). New York, NY: Cambridge University Press.

- Nettle, D. & S. Romaine. 2000. *Vanishing voices: The extinction of the world's languages*.
Oxford: Oxford University Press.
- Nicoladis, E., & Genesee, F. (1996). A longitudinal study of pragmatic differentiation in young bilingual children. *Language Learning*, 46(3), 439-464. DOI:10.1111/j.1467-1770.1996.tb01243.x.
- Nicoladis, E., & Secco, G. (2000). The role of a child's productive vocabulary in the language choice of a bilingual family. *First Language*, 20(58), 3-28.
- Ninio, A. (1980). Picture-book reading in mother-infant dyads belonging to two subgroups in Israel. *Child Development*, 51, 587-590.
DOI:<http://dx.doi.org/10.1017/S0305000900001896>.
- Ninio, A., & Snow, C. (1988). Language acquisition through language use: The functional sources of children's early utterances. In Y. Levy, I. Schlesinger, & M.D.S. Braine (Eds.), *Categories and processes in language acquisition* (pp. 11-30). Hillsdale, NJ: Erlbaum.
- O'Brien, M. & Nagel, K. (1987). Parents 'speech to toddlers: the effect of play context. *Journal of Child Language*, 14, 269-279.
DOI:<http://dx.doi.org.ezproxy.gc.cuny.edu/10.1017/S0305000900012927>.
- Peirce, C. S. (1885/1982). The logic notebook. In M. Fisch, C. J. W. Kloesel, E. C. Moore, D. D. Roberts, L. A. Ziegler, & N. P. Atkinson (Eds.), (1982), *Writings of Charles S. Peirce: A chronological edition, Volume 1 1857-1866* (pp. 337-350). Indianapolis, IN: Indiana University Press.
- Piaget, J. (1962). *Dreams and imitation in childhood*. C. Gattegno and FM Hodgson (Transl.).
New York: WW Norton and Company, Inc.

- Pfaff, C. W. (1993). Turkish language development in Germany. In G. Extra & L. Verhoeven (Eds.), *Immigrant Languages in Europe* (pp.119 – 146). Clevedon: Multilingual Matters
- Phinney, J. S. (1990). Ethnic identity in adolescents and adults: Review of research. *Psychological Bulletin*, *108*(3), 499-514.
- Phinney, J. S., Romero, I., Nava, M., & Huang, D. (2001). The role of language, parents and peers in ethnic identity among adolescents in immigrant families. *Journal of Youth and Adolescence*, *30*, 135–153. DOI:10.1023/A:1010389607319
- Puccini, D., Hassemer, M., Salomo, D., & Liskowski, U. (2010). The type of shared activity shapes caregiver and infant communication. *Gesture*, *10*(2-3), 279-296.
DOI:<http://dx.doi.org.ezproxy.gc.cuny.edu/10.1075/gest.10.2-3.08puc>.
- Pye, C. (1986). Quiché Mayan speech to children. *Journal of Child Language*, *13*(1), 85-100.
DOI:<http://dx.doi.org.ezproxy.gc.cuny.edu/10.1017/S0305000900000313>.
- Salomo, D., & Liskowski, U. (2013). Sociocultural settings influence the emergence of prelinguistic deictic gestures. *Child Development*, *84*(4), 1296-1307.
doi:10.1111/cdev.12026.
- Schieffelin, B. & Ochs, E. (Eds.). (1986). *Language socialization across cultures*. Cambridge, UK: Cambridge University Press.
- Shneidman, L. A., & Goldin-Meadow, S. (2012). Language input and acquisition in a Mayan village: how important is directed speech? *Developmental Science*, *15*(5), 659-673.
DOI:10.1111/j.1467-7687.2012.01168.x.
- Snow, C. E., Arlman-Rupp, A., Hassing, Y., Jobse, J., Joosten, J., & Vorster, J. (1976). Mothers' speech in three social classes. *Journal of Psycholinguistic Research*, *5*(1), 1-20.
DOI:10.1007/BF01067944.

- Statistischer Bericht (2013). Einwohnerinnen und Einwohner im land Berlin am 31. Dezember 2012. Retrieved from https://www.statistik-berlin-brandenburg.de/Publikationen/Stat_Berichte/2013/SB_A01-05-00_2012h02_BE.pdf.
- Takash, S. G., Lindtvedt, K. A., & Ragir, S. (2006, August). *TakLin SubTrak video coder*. Invited presentation in the symposium on New Technology for Behavioral Analysis at the Annual Meeting of the Animal Behavior Society, Snowbird, UT.
- Tamis-LeMonda, C. S., Kuchirko, Y., & Song, L. (2014). Why is infant language learning facilitated by parental responsiveness?. *Current Directions in Psychological Science*, 23(2), 121-126.
- Tardif, T., Gelman, S. A., & Xu, F. (1999). Putting the “noun bias” in context: A comparison of English and Mandarin. *Child Development*, 70(3), 620-635. DOI:10.1111/1467-8624.00045.
- Tomasello, M., & Farrar, M. J. (1986). Joint attention and early language. *Child Development*, 57(6), 1454-1463. DOI:10.2307/1130423.
- Türkiye İstatistik Kurumu (2013). Retrieved from <http://www.tuik.gov.tr/ilGostergeleri/iller/RIZE.pdf>.
- UNESCO Ad Hoc Expert Group on Endangered Languages (2003). *Language Vitality and Endangerment Report*. Retrieved from <http://www.unesco.org/culture/ich/doc/src/00120-EN.pdf>
- Vedder, P., & Virta, E. (2005). Language, ethnic identity, and the adaptation of Turkish immigrant youth in the Netherlands and Sweden. *International Journal of Intercultural Relations*, 29(3), 317-337. Doi:10.1016/j.ijintrel.2005.05.006

- Vygotsky, L. S. (1933/1967). Play and its role in the mental development of the child. *Journal of Russian and East European Psychology*, 5(3), 6-18. DOI:10.2753/RPO1061-040505036.
- Vygotsky, L. S. (1978). *Mind and society: The development of higher mental processes*. Cambridge, MA: Harvard University Press. Vygotsky, L. S. Play and its role in the mental development of the child. *Soviet Psychology*, 1967(5), 6-18.
- Vieth-Entus, S. (2013, August 20). Berliner vielfalt: fremdsprachen von klasse 1 bis 13. *Der Tagesspiegel*. Retrieved from <http://www.tagesspiegel.de/berlin/schule/berliner-vielfalt-fremdsprachen-von-klasse-1-bis-13/8660850.html>.
- Wilkins, D. (2003). Why pointing with the index finger is not a universal (in sociocultural and semiotic terms). In S. Kita (Ed.), *Pointing: Where language, culture, and cognition meet* (pp. 171–215). Mahwah, NJ: Erlbaum.
- Wu, Z., & Gros-Louis, J. (2014). Infants' prelinguistic communicative acts and maternal responses: Relations to linguistic development. *First Language*, 34(1), 72-90. DOI:10.1177/0142723714521925.
- Yüksel, E. (1995). Kinderlosigkeit bei türkischen paaren: "Wie ein baum ohne früchte". [Childlessness among Turkish couples: „Like a tree without fruits“]. *TW Gynakologie*, 8(6), 461-467.