THE IMPACT OF GENDER ROLES ON THE USE OF SUBJECTIVE PERSPECTIVES IN AUTOBIOGRAPHICAL MEMORIES IN MOTHER-CHILD DYADS: A LONGITUDINAL STUDY

A THESIS SUBMITTED TO
THE GRADUATE SCHOOL OF SOCIAL SCIENCES
OF
MIDDLE EAST TECHNICAL UNIVERSITY

BY

FATMA ŞEYMA KALKAN İNAN

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR
THE DEGREE OF DOCTOR OF PHILOSOPHY
IN
THE DEPARTMENT OF PSYCHOLOGY

OCTOBER 2025

Approval of the thesis:

THE IMPACT OF GENDER ROLES ON THE USE OF SUBJECTIVE PERSPECTIVES IN AUTOBIOGRAPHICAL MEMORIES IN MOTHER-CHILD DYADS: A LONGITUDINAL STUDY

submitted by **FATMA ŞEYMA KALKAN İNAN** in partial fulfillment of the requirements for the degree of **Doctor of Philosophy in Psychology, the Graduate School of Social Sciences of Middle East Technical University** by,

Prof. Dr. Sadettin KİRAZCI
Dean
Graduate School of Social Sciences _____

Prof. Dr. Bengi ÖNER ÖZKAN
Head of Department
Department of Psychology _____

Assoc. Prof. Dr. Başak ŞAHİN ACAR
Supervisor
Department of Psychology _____

Examining Committee Members:

Prof. Dr. Sibel KAZAK BERUMENT (Head of the Examining Committee)
Middle East Technical University
Department of Psychology _____

Assoc. Prof. Dr. Başak ŞAHİN ACAR (Supervisor)
Middle East Technical University
Department of Psychology _____

Assoc. Prof. Dr. Eda KARACAN
Ufuk University
Department of Psychology _____

Assist. Prof. Dr. Demet ÖZER
Bilkent University
Department of Psychology _____

Assist. Prof. Dr. Dilay Zeynep KARADÖLLER
Middle East Technical University
Department of Psychology _____

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Name, Last Name: Fatma Şeyma KALKAN İNAN

Signature:

ABSTRACT

THE IMPACT OF GENDER ROLES ON THE USE OF SUBJECTIVE PERSPECTIVES IN AUTOBIOGRAPHICAL MEMORIES IN MOTHER-CHILD DYADS: A LONGITUDINAL STUDY

KALKAN İNAN, Fatma Şeyma
Ph.D., The Department of Psychology
Supervisor: Assoc. Prof. Dr. Başak ŞAHİN ACAR

October 2025, 162 pages

This study investigates how maternal gender role traits—specifically masculine and feminine qualities—influence children's gender role development, use of subjective perspectives, and age of memory recall in autobiographical memory. Using a longitudinal design across two time points, the research explores developmental changes in memory narratives and examines differences by child gender and school level. Drawing on gender schema theory and social interactionist models of memory development, this study addresses gaps in the literature regarding how gendered parental traits influence children's narrative identity. Participants included mother-child dyads from 61 provinces and 185 schools, with children ranging in age from 8 to 18 years.

Hierarchical regression analyses examining the impact of maternal gender-role traits on child gender-role traits indicated that maternal masculinity was the strongest predictor of both child masculinity and femininity, particularly among girls. Structural equation models revealed that child age, child gender, and child

masculinity were significant predictors of children's subjective perspectives and age of memory recall. Maternal use of subjective perspectives also significantly predicted children's use of subjective perspectives in middle school for happy memories and in both middle and high school for sad memories. These findings provide insight into the role of maternal influence in the emergence of gendered patterns in memory elaboration, contributing to a deeper understanding of the socialization of autobiographical memory and identity formation.

Keywords: autobiographical memory, subjective perspectives, gender-role, masculinity, femininity, age of memory

ÖZ

ANNE-ÇOCUK İKİLİLERİNDE TOPLUMSAL CİNSİYET ROLLERİNİN OTOBİYOGRAFİK BELLEKLERDE ÖZNEL BAKIŞ AÇISI KULLANIMINA ETKİSİ: BOYLAMSAL BİR ÇALIŞMA

KALKAN İNAN, Fatma Şeyma
Doktora, Psikoloji Bölümü
Tez Yöneticisi: Doç. Dr. Başak ŞAHİN ACAR

Ekim 2025, 162 sayfa

Bu çalışma, annelerin toplumsal cinsiyet rolleriyle ilişkili özelliklerinin – özellikle maskülen ve feminen niteliklerinin – çocukların toplumsal cinsiyet rolü gelişimini, öznel bakış açısı kullanımını ve otobiyografik belleklerindeki anı yaşı üzerinde nasıl etkili olduğunu incelemektedir. İki zaman noktasından oluşan boylamsal bir tasarım kullanılarak, bellek anlatılarındaki gelişimsel değişimler araştırılmış ve çocukların cinsiyetlerine ve okul düzeylerine göre farklılıklar incelenmiştir. Çalışma, toplumsal cinsiyet şeması kuramı ve belleğin sosyal etkileşimci modellerinden yararlanarak, toplumsal cinsiyetle ilişkili ebeveyn özelliklerinin çocukların anlatı kimliklerini nasıl şekillendirdiğine ilişkin alanyazındaki boşluğu doldurmayı amaçlamaktadır. Çalışmaya, Türkiye'nin 61 ilinden ve 185 okulundan, yaşları 8 ile 18 arasında değişen çocuklar ve annelerinden oluşan anne-çocuk ikilileri dahil edilmiştir.

Annelerin toplumsal cinsiyet rolleriyle ilişkili özelliklerinin çocukların toplumsal cinsiyet özellikleri üzerindeki etkisini inceleyen hiyerarşik regresyon analizleri, özellikle kız çocuklarında olmak üzere, anne maskülenliğinin hem çocuk

maskülenliğinin hem de çocuk feminenliğinin en güçlü yordayıcısı olduğunu göstermiştir. Yapısal eşitlik modelleri, çocuk yaşı, çocuk cinsiyeti ve çocuk maskülenliğinin çocukların öznel bakış açısı kullanımı ve anı yaşının anlamlı yordayıcıları olduğunu ortaya koymuştur. Ayrıca, annelerin öznel bakış açısı kullanımı, ortaokul döneminde mutlu anılar için ve hem ortaokul hem de lise döneminde olumsuz anılar için çocukların öznel bakış açısı kullanımlarını anlamlı şekilde yordamıştır. Bulgular, bellek anlatılarında toplumsal cinsiyete özgü örüntülerin ortaya çıkışında annelerin etkisine ışık tutmakta ve otobiyografik belleğin ve kimlik oluşumunun sosyalleşmesine dair daha derin bir anlayış sağlamaktadır.

Anahtar Kelimeler: otobiyografik bellek, öznel bakış açıları, toplumsal cinsiyet rolü, maskülen, feminen, anı yaşı

To my mother, Şerife, my father, Mehmet, my husband, Yaser, and my dear children, Ömer Taha and Zehra

ACKONOWLEDGEMENTS

This thesis would not have been possible without the valuable contributions and support of many people. First and foremost, I extend my deepest gratitude to my advisor, Assoc. Prof. Dr. Başak Şahin-Acar, for granting me the opportunity to embark on an academic career. Your mentorship, guidance, and unwavering support gave me the courage to persevere despite every obstacle I encountered along the way.

I am also sincerely grateful to my supervising committee members, Prof. Dr. Sibel Kazak-Berument and Assoc. Prof. Dr. Eda Karacan, for their invaluable insights, feedback, and encouragement from the beginning to the end of the thesis process. I would also like to thank Assist. Prof. Dr. Demet Özer and Assist. Prof. Dr. Dilay Z. Karadöller for being part of the final thesis committee and giving valuable feedback to improve my thesis.

My heartfelt thanks go to my dear friend, Betül Abut, for illuminating my path and standing by me whenever I was in need. Your emotional support, help, and friendship made this process bearable.

I humbly recognize that the impact of my contribution to the literature may be no more than a single grain of sand among all the beaches of the world. At the beginning of this journey, I was enthusiastic and perhaps overly ambitious about my place in this field. (Now, I can't help but smile at that early optimism.) Over time, I have come to understand that my work—like a single fish in a school—gains its true power only as part of a larger collective movement. I once read a bedtime story about schooling fish with my son, and it struck me that only when fish move together do they create waves, change direction, and enhance the survival of the group. Academia feels very much the same: individual efforts matter, but real impact is made collectively.

I could not have reached this moment without the support of those around me. My professors, advisors, mother, father, husband, children, and countless others stepped in whenever I needed help—whether I was finishing coding, attending class, or taking an exam. For years, I leaned on my "schooling fish," asking, *"Can you watch Ömer for two hours?"* or *"Can you take care of the kids today so I can study?"* Every act of support brought me one step closer to completing this PhD. I cannot thank my schooling fish enough. I truly would not have reached this point without you. I am humbled, and I am deeply grateful.

I owe my greatest and deepest gratitude to my family. It truly takes a village to raise children, and without your help, I would not have been able to pursue my studies while caring for my children. To my sister, Betül, thank you for being my constant source of encouragement and for reminding me, *"Abla, you got this."* To my Ayşe abla, thank you for always being there when I needed help with my children and for stepping in whenever I needed an extra hand. Your support has been invaluable throughout this journey.

To my beloved mother, you have made countless sacrifices for my education and happiness. You cared for my children so that I could chase my dreams. To my father, you are my moral compass and the reason I keep pushing forward. As the daughter of an immigrant family in the United States, I know how hard it was for you and my mother to raise us in an unfamiliar country on your own. You risked everything for my sister and me, and we owe you everything. I dedicate this thesis to you both—for your hardships, sacrifices, and unconditional love. I hope this work makes you proud and justifies every challenge you endured for us.

To my husband, Yaser, you have stood by my side, supported every decision I made, and helped me put them into action. Thank you for letting me whine and cry, have late night panic attacks, and helping me move forward every time I doubted myself.

To my dear son, Ömer Taha, I did not know I was carrying you when I began this journey. We started this together and finished it together—you waited outside my classes, you slept in my arms as I studied, and you were with me every step of the

way. To my daughter, Zehra, you inspired me to push myself even harder so that I could set an example for you. Balancing PhD life and motherhood was not always easy, and at times, I felt guilty for not being present enough. But you both were my motivation and my greatest joy.

TABLE OF CONTENTS

PLAGIARISM iii
ABSTRACT iv
ÖZ vi
DEDICATION viii
ACKONOWLEDGEMENTS ix
TABLE OF CONTENTS xii
LIST OF TABLES xvi
LIST OF FIGURES xvii
CHAPTERS
1. INTRODUCTION 1
1.1. Overview 1
1.2. Introduction to Autobiographical Memory 3
1.2.1. Definition and Importance 3
1.2.2. Developmental Trajectory 5
1.2.3. Theoretical Framework of Autobiographical Memory 6
1.2.4. Gender Differences in the Development of Autobiographical Memory 7
1.2.5. The Importance of Sad and Happy Memories in Autobiographical Memory 8
1.3. Parental Influences on Autobiographical Memory 9
1.3.1. Role of Social Interaction in Memory Development 9
1.3.2. Demographic Variables that Impact Autobiographical Memory Development 10
1.3.3. Maternal Reminiscing and Subjective Perspective Development 12
1.4. Gender-Role Traits in Mothers and Children 12
1.4.1. What is Gender? Theoretical Background 12
1.4.2. Masculinity and Femininity as Traits 13
1.4.3. Development of Gender-Role Traits in Children 14
1.5. Influence of Maternal Gender-Role Traits on Parenting 17

1.5.1. Influence on Reminiscing Style and Emotion Socialization 18
1.5.2. Influence of Parental Gender Role-Traits on Age of Memory Recall 19
1.6. Gaps in the Literature and Need for the Current Study 20
1.7. Study Aim 21
2. METHOD 25
2.1. Participants 25
2.1.1. Time 1 25
2.1.2. Time 2 26
2.1.3. Participants for Analyses 26
2.2. Measures 29
2.2.1. Child Measures 29
2.2.1.1. Demographic Information Form 29
2.2.1.2. The BEM Sex Role Inventory 29
2.2.1.3. Autobiographical Memory Questionnaire 30
2.2.2. Maternal Measures 30
2.2.2.1. Demographic Information Form 30
2.2.2.2. The BEM Sex Role Inventory 31
2.2.2.3. The Autobiographical Memory Questionnaire 31
2.3. Procedure 31
2.3.1. Time 1 32
2.3.2. Time 2 33
2.3.3. Coding Process 35
2.3.4. Data Analysis 36
3. RESULTS 37
3.1. Preliminary Analyses 37
3.2. Correlations of Study Variables 38
3.2.1. Correlation Between Variables of Mother-Child Dyads for Happy Memories 38
3.2.1.1. At the Elementary School Level 38
3.2.1.2. At the Middle School Level 39
3.2.1.3. At the High School Level 40
3.2.2. Correlation Between Variables of Mother-Child Dyads for Sad Memories 41

3.2.2.1. At the Elementary School Level 41
3.2.2.2. At the Middle School Level 42
3.2.2.3. At the High School Level 43
3.3. The Impact of Maternal Gender Role Traits on Child Gender-Role Traits Based on School Level 50
3.3.1 For Child Masculinity 50
3.3.2. For Child Femininity 52
3.4. The Impact That Maternal Gender-Roles Have on Child Subjective Perspectives and Age of Memory Recall 54
3.4.1. Happy Memories 54
3.4.1.1. At the Elementary School Level 54
3.4.1.2. At the Middle School Level 57
3.4.1.3. At the High School Level 58
3.4.2. Sad Memories 59
3.4.2.1. At the Elementary School Level 59
3.4.2.2. At the Middle School Level 61
3.4.2.3. At the High School Level 63
3.5. The Impact That Gender-Roles Have on The Use of Subjective Perspectives (Between Time 1 and Time 2) 65
3.5.1. Happy Memories 65
3.5.2. Sad Memories 68
3.6. Regression Analyses for the Factors at Time 1 that Impact Child Use of Subjective Perspectives at Time 2 71
3.6.1. Regression Analyses for Child Happy Memories 71
3.6.2. Regression Analyses for Child Sad Memories 72
3.7. Regression Analyses for the Factors at Time 1 that Impact The Age of Memory Recall at Time 2 76
3.8. Regression Analyses for the Factors at Time 1 That Impact Age of Reported Memory at Time 2 in Sad Memories 77
4. DISCUSSION 81
4.1. Preliminary Findings: Correlations Among Key Variables 82
4.1.1. Key Findings and Discussion of Gender Role Traits 82
4.1.2. Subjective Perspective Use 84

4.1.3. Age of Memory Recall 86
4.1.4. Contextual and Demographic Influences 87
4.1.5. Summary 88
4.2. Key Findings of Maternal Gender-Role Traits in Child Gender Role Traits .. 88
4.3. Discussion on Key Findings for Structural Equation Model 92
4.3.1. Happy Memories 92
4.3.1.1. Maternal Model 92
4.3.1.2. Child Model 95
4.3.2. Sad Memories 97
4.3.2.1. Maternal Model 97
4.3.2.2. Child Model 99
4.4. Path Analysis between Time 1 and Time 2 101
4.4.1. Happy Memories 101
4.4.2. Sad Memories 103
4.5. Discussion on Key Findings for Regression Analyses 105
4.5.1. Subjective Perspectives 105
4.5.2. Age of Memory Recall 106
4.6. Limitations and Future Directions 107
4.7. Strengths, Contributions to the Literature, and Implications 109
REFERENCES 112
APPENDICES
A. APPROVAL OF THE METU HUMAN SUBJECTS ETHICS COMMITTEE. 130
B. APPROVAL OF MINISTRY OF EDUCATION 131
C. CHILD MEASURES 132
D. MATERNAL MEASURES 133
E. MEASURE GIVEN TO BOTH MOTHERS AND CHILDREN 134
F. CURRICULUM VITAE 136
G. TURKISH SUMMARY-TÜRKÇE ÖZET 139
H. THESIS PERMISSION FORM / TEZ İZİN FORMU 162

LIST OF TABLES

Table 1. Demographic Characteristics of Mother-Child in Happy Memories 27
Table 2. Demographic Characteristics of Mother-Child in Sad Memories 28
Table 3. Memory Content for Time 1 and Time 2 in Happy and Sad Memories for Mothers and Children 34
Table 4. Correlational Statistics of Study Variables for Happy Memories in Elementary School 44
Table 5. Correlational Statistics of Study Variables for Happy Memories in Middle School 45
Table 6. Correlational Statistics of Study Variables for Happy Memories in High School 46
Table 7. Correlational Statistics of Study Variables for Sad Memories in Elementary School 47
Table 8. Correlational Statistics of Study Variables for Sad Memories in Middle School 48
Table 9. Correlational Statistics of Study Variables for Sad Memories in High School 49
Table 10. Regression Analyses for Mother-Child Gender-Role Interactions for Child Masculinity Across School Levels 51
Table 11. Regression Analyses for Mother-Child Gender-Role Interactions for Child Femininity Across School Levels 53
Table 12. Regression Analyses for the Factors at Time 1 that Impact Child Use of Subjective Perspectives at Time 2 in Happy Memories 73
Table 13. Regression Analyses for the Factors at Time 1 that Impact Child Use of Subjective Perspectives at Time 2 for Sad Memories 75
Table 14. Regression Analyses for the Factors at Time 1 That Impact Age of Reported Memory at Time 2 in Happy Memories 78
Table 15. Regression Analyses for the Factors at Time 1 That Impact Age of Reported Memory at Time 2 in Sad Memories 79

LIST OF FIGURES

Figure 1. Proposed Structural Equation Model 24
Figure 2. The Interplay between Maternal Masculinity and Child Masculinity Between Boys and Girls 51
Figure 3. Path Model for Maternal Gender-Roles and its Impact on Subjective Perspectives Use and Age of Memory in Happy Memories at the Elementary School Level 55
Figure 4. Path Model for Child Gender-Roles and its Impact on Subjective Perspectives Use and Age of Memory in Happy Memories at the Elementary School Level 56
Figure 5. Path Model for Maternal Gender-Roles and its Impact on Subjective Perspectives Use and Age of Memory in Happy Memories at the Middle School Level 56
Figure 6. Path Model for Child Gender-Roles and its Impact on Subjective Perspectives Use and Age of Memory in Happy Memories at the Middle School Level 57
Figure 7. Path Model for Maternal Gender-Roles and its Impact on Subjective Perspectives Use and Age of Memory in Happy Memories at the High School Level 58
Figure 8. Path Model for Child Gender-Roles and its Impact on Subjective Perspectives Use and Age of Memory in Happy Memories at the High School Level 59
Figure 9. Path Model for Maternal Gender-Roles and its Impact on Subjective Perspectives Use and Age of Memory in Sad Memories at the Elementary School Level 60
Figure 10. Path Model for Child Gender-Roles and its Impact on Subjective Perspectives Use and Age of Memory in Sad Memories at the Elementary School Level 61

Figure 11. Path Model for Maternal Gender-Roles and its Impact on Subjective Perspectives Use and Age of Memory in Sad Memories at the Middle School Level 62
Figure 12. Path Model for Child Gender-Roles and its Impact on Subjective Perspectives Use and Age of Memory in Sad Memories at the Middle School Level 62
Figure 13. Path Model for Maternal Gender-Roles and its Impact on Subjective Perspectives Use and Age of Memory in Sad Memories at the High School Level 64
Figure 14. Path Model for Child Gender-Roles and its Impact on Subjective Perspectives Use and Age of Memory in Sad Memories at the High School Level 64
Figure 15. Path Model for Maternal and Child Gender-Roles and its Impact on Maternal and Child Subjective Perspectives Use Between Time 1 and Time 2 in Happy Memories in Elementary School 66
Figure 16. Path Model for Maternal and Child Gender-Roles and its Impact on Maternal and Child Subjective Perspectives Use Between Time 1 and Time 2 in Happy Memories in Middle School 67
Figure 17. Path Model for Maternal and Child Gender-Roles and its Impact on Maternal and Child Subjective Perspectives Use Between Time 1 and Time 2 in Happy Memories in High School 68
Figure 18. Path Model for Maternal and Child Gender-Roles and its Impact on Maternal and Child Subjective Perspectives Use Between Time 1 and Time 2 in Sad Memories in Elementary School 69
Figure 19. Path Model for Maternal and Child Gender-Roles and its Impact on Maternal and Child Subjective Perspectives Use Between Time 1 and Time 2 in Sad Memories in Middle School 69
Figure 20. Path Model for Maternal and Child Gender-Roles and its Impact on Maternal and Child Subjective Perspectives Use Between Time 1 and Time 2 in Sad Memories in High School 70

CHAPTER 1

INTRODUCTION

1.1. Overview

Autobiographical memory – the recollection of personally experienced past events – is fundamental to a person's sense of identity and self. It enables individuals to make meaning of their past, guide their present behaviors, and plan for the future (Nelson & Fivush, 2004). Autobiographical memory also enables individuals to construct a coherent personal narrative, which facilitates their understanding of their identity and how they navigate their daily lives. It goes beyond simply recalling the past; it serves as a guide for exploring our lives and connecting with our surroundings. In childhood, the development of autobiographical memory occurs gradually, supported by cognitive growth and social interactions. While the ability to retrieve memories appears early in life, the skill to construct coherent, detailed, and emotionally rich narratives about the past develops over the preschool and school-age years (Bauer & Larkina, 2014). This developmental trajectory is not uniform but is profoundly shaped by individual, social, and cultural influences—most notably, the role of parents.

Among the earliest and most influential theorists in this domain, Fivush and Nelson (2004) proposed that autobiographical memory is socially scaffolded, particularly through parent-child reminiscing. Through joint conversations about past events, children learn how to structure narratives, attach meaning, and generate subjective perspectives—such as expressing thoughts, feelings, and motivations associated with past experiences. The style of parental reminiscing—whether elaborative, directive, or repetitive—has been shown to impact children's narrative abilities and emotional insight significantly (Reese et al., 2011). Children whose parents, especially mothers,

use a highly elaborative style—asking open-ended questions, providing rich detail, and encouraging emotional reflection—tend to develop more coherent and reflective autobiographical memories.

Parental characteristics, including gender-role traits, beliefs, and expressions, are increasingly understood to influence the nature and quality of early narrative interactions with children. For example, mothers who display strong feminine traits are more likely to engage in emotionally elaborative reminiscing, particularly with daughters (Fivush & Haden, 2003). In contrast, parents with more masculine traits often focus on factual information, actions, and outcomes over emotional details. This difference in storytelling approaches can lead to a narrative styles that lacks emotionally detail (Valentino et al., 2014). These differences in reminiscing style can significantly affect how children construct and use subjective perspectives in their memories.

Additionally, parental gender-role traits not only influence conversational style but also act as models for gendered self-expression. According to the Gender Schema Theory (Bem, 1981) and Social Learning Theory (Bandura, 1977), children internalize gender norms and behavioral scripts through observing and imitating caregivers. Thus, maternal masculinity and femininity are not merely individual traits; they function as socializing forces that influence children's gender-role development and potentially their cognitive-emotional processing of life events. Recent research suggests that these gender-role traits may influence the emergence and use of subjective perspectives in autobiographical memory, as gender socialization practices are often closely tied to how emotion and self are communicated (Li et al., 2024).

Despite the growing interest in the relationship between parental gender-role traits and children's memory development, research in this area remains limited. Most studies focus either on gender Moreover, little is known about how these influences vary across developmental stages, such as between early childhood and adolescence, or how child gender may moderate these effects. Given the central role of memory in the development of identity, emotional well-being, and social understanding, it is

critical to understand how parental gender-role orientations shape not only children's gender identity but also their narrative constructions. This study with its cross-sectional design constitutes a unique contribution into the related literature. It draws data from a nationwide project involving a substantial number of participants covering a broad developmental range, spanning from elementary school through the end of high school, allowing for the investigation of developmental patterns during key transitions in childhood and adolescence. Additionally, using a cross-sectional design with two time points, the study offers a unique opportunity to observe both age-related differences and developmental changes over time. Importantly, this study examines these trajectories by including the views of both parents and children, providing a more comprehensive understanding of the developmental patterns of children and how parental characteristics impact child development.This dissertation seeks to address this gap by examining how maternal masculinity and femininity influence children's gender-role traits and their role in the use of subjective perspectives and age of memory in autobiographical memory. By exploring these relationships across different school levels and child gender, this study aims to contribute to a more nuanced understanding of the intergenerational transmission of gendered cognitive-emotional patterns and their role in memory development.

1.2. Introduction to Autobiographical Memory

This thesis begins by developing the key aspects and theories that make up this study. The first part is dedicated to autobiographical memory, including its definition, theoretical background, and factors that impact its development. The second part of the introduction is dedicated to gender-role traits; similarly to the previous section, its definition and theoretical background will be discussed. The third section will explore the connection between autobiographical memory and gender-role traits. Finally, the last section will address the gaps in the literature and conclude with the study's aim and hypotheses.

1.2.1. Definition and Importance

Autobiographical memory refers to the ability to recall personally experienced past events that are tied to specific times and places (Fivush, 2011). Although the

definition of autobiographical memory is generally consistent throughout the literature, variations exist in the aspects that comprise and distinguish autobiographical memories. Early on in the literature, Tulving (1972) specified that the combination of episodic and semantic memory characterizes memory systems. Episodic memories refer to events that are situated in a specific time and place. *For example, "I remember my 12th birthday party. My parents surprised me by making a birthday cake and calling all of my friends over. I was wearing a pink dress. My best friend bought me my favorite book. I remember being very happy that day."* Semantic memories, on the other hand, are beliefs and facts about the self that are general knowledge without a specific time and place. (Conway & Pleydell-Pearce, 2000). *For example: I remember Saturday night dinners with my family. It was once a family tradition. Everyone would get together and discuss their day. My mother and father made sure that we were all there."* Both memory types are important for the development of a coherent sense of self; however, all autobiographical memory is derived from episodic memory —memory that is specific to what, where, and when an individual experienced an event (Fivush, 2011). The development of autobiographical memory enables individuals to construct their self-identity, map out their present and future behavior, and connect socially with others through shared narratives (Nelson & Fivush, 2004). First and foremost, one function of autobiographical memory is that it supports identity development by allowing individuals to develop a sense of self over time by integrating and building on past experiences. By recalling past experiences, individuals form a narrative identity —a life story of oneself that provides meaning (Habermas & Bluck, 2000; McAdams, 2001). This process of narrative identity typically begins in middle childhood and strengthens during adolescence, becoming particularly important during this time frame when self-identity becomes crucial to identity development (Conway, & Pleydell-Pearce, 2000). As Fivush (2011) states, "Autobiographical memory is essential for constructing a sense of who we are across time."

A second function of autobiographical memory is to facilitate social bonding between people. Sharing personal memories strengthens social relationships, guides future behavior, and strengthens decision-making. Children learn how to communicate experiences through guided conversations with their caregivers,

especially mothers. This communication helps develop the child's sense of self and fosters trust and connection (Alea & Bluck, 2003; Nelson & Fivush, 2004).

Next, memories of past experiences also have a teaching component (directive function) in which an individual contemplates previously made decisions, which then impact present and future decisions. Parents share memories/past experiences with their children to teach life lessons, helping them make decisions and develop their problem-solving skills (Pillemer, 2001). In doing this, children can make better choices in future events. Furthermore, autobiographical memory also has an emotional regulation function. Sharing and narrating past events with parents contributes to emotional processing, understanding, and reframing by allowing individuals to interpret and make sense of emotional experiences, and further allowing children to reflect on these feelings and process similar emotions during times of discomfort. This is especially important during childhood, as parents scaffold emotional interpretation during reminiscing (Fivush et al., 2003; Fivush & Haden, 2003; Sales et al., 2003; Waters et al., 2019).

Finally, autobiographical memory serves a cognitive purpose, supporting the development of language, cognitive functions, and a theory of mind. Reese et al. (2001) state that children who engage in elaborative memory conversations often show better narrative structure, vocabulary use, and understanding of others' perspectives. In summary, the emergence of autobiographical memories in children indicates more than just memory development; they reflect the child's growing understanding of themselves as continuous beings across time and their ability to represent mental, personal, and shared experiences with others (Bauer & Larkina, 2014).

1.2.2. Developmental Trajectory

The development of autobiographical memory unfolds gradually and is shaped by multiple factors, including theory of mind, self-concept, language, caregiver roles, age, and gender. It is closely linked to the appearance of self-awareness and language abilities in children. In infancy and early childhood (0-3 years), children lay the

foundations for memories, but without the development of autobiographical memory. During the first few years of life, children can form memories; however, these are implicit memories, and they lack the cognitive capacity and language skills required to form autobiographical memories. Long-lasting autobiographical memories typically emerge between the ages of 3 and 5 years—a period often referred to as the end of infantile amnesia (Bauer, 2007). During the preschool years (3-6 years), children's memory narratives become more coherent, exhibit a more transparent temporal structure, and show increased emotional elaboration. This is due to the emergence of language and parental elaborative reminiscing (Nelson & Fivush, 2004). By middle childhood (6-10 years), children begin to produce narratives that are more causally connected and rich in internal-state language (Fivush et al., 2011). Entering the school years marks an increase in language ability, whereby children's use of subjective perspectives—language that reflects thoughts, feelings, and motivations—increases, which in turn contributes to more mature narrative identity development (Fivush et al., 2006; Habermas & Reese, 2015). This developmental shift is not solely cognitive; it is also influenced by cultural and social expectations, including gender role socialization and the quality of parent–child interactions. Finally, during late childhood and adolescence (10 years and older), adolescents begin creating life narratives, giving meaning and emotional significance to memories based on past experiences, which shape their self-identity.

1.2.3. Theoretical Framework of Autobiographical Memory

The development of autobiographical memory is primarily grounded in the socio-cultural developmental theory, which integrates multiple perspectives. The influential theorists in this framework, such as Nelson, Fivush, Reese, and others developed the core idea that autobiographical memory is not solely developed through cognitive factors but through social interactions (parent-child reminiscing), especially those that are with caregivers that help the child organize, label and interpret personal experiences (Nelson & Fivush, 2004). This theory is further supported in studies showing that elaborative maternal reminiscing (Reese et al., 1993) and cultural values (Wang, 2001) influence what children remember, how they narrate their memories, and why they matter. Over time, children internalize these

practices and construct their coherent life narratives. The key components of the social-cultural developmental theory are social interaction and reminiscing, in which parents guide their children in telling stories about the past. While doing so, elaborative reminiscing styles (utilizing open-ended questions, emotional language, and evaluations) are more effective in supporting memory development compared to repetitive and factual styles. Another key component is language development; language is critical for organizing and retrieving autobiographical memories. As children gain vocabulary and grammar, they can construct more complex narratives. The final component is the cultural element, which plays a meaningful role in shaping the events that are remembered, shared, and interpreted. Past studies examine differences between individualistic and collectivist societies, highlighting how distinct cultural values influence parent-child reminiscing and the development of autobiographical memory (Wang, 2001). More recent studies show that, indeed, there are cultural patterns; for instance, American mothers tend to use a more elaborate style of speech when compared to Chinese mothers (Wang, 2001). However, even within the same cultural context, individual parental differences also create significant variation in narrative styles (Şahin-Acar & Leichtman, 2015).

1.2.4. Gender Differences in the Development of Autobiographical Memory

Literature has established that there is a difference in the development of autobiographical memory between girls and boys. Most research discusses how girls have more elaborate memory narratives when compared to boys, and the reasoning behind this is the basis for this study. Putting aside biological factors, one of the primary reasons for this is the way caregivers interact with their children daily. The more caregivers talk to their children, the more their children may be able to express themselves in memory narratives. An original work by Buckner and Fivush (1998, 2000) examines the gender differences in children's memory narratives. They found that girls usually provide longer, more detailed, and socially contextualized autobiographical memories when compared to boys. On the other hand, boys tend to focus on independent achievements. Both authors report that through parent socialization, girls engage in elaborative conversations about sadness, leading them to develop memories with an interpersonal focus. Boys are socialized to minimize

emotional expression, particularly sadness, thereby affecting the emotional tone of their memory narratives. Overall, this demonstrates that gendered cognitive structures may be internalized early on in children. Further, an individual's identification with gender-typical traits influences the content of autobiographical memories. Individuals who adhere to traditional feminine gender roles are more likely to produce narratives that are emotionally intense, interpersonally rich, and cognitively more detailed. These patterns hold across all event types (including happy and sad memories) regardless of event valence (Grysman et al., 2016). This highlights the linkage between child gender role traits and the subjective perspective in memory recall.

1.2.5. The Importance of Sad and Happy Memories in Autobiographical Memory

Research in autobiographical memory frequently uses happy and sad memory narratives as a basis for collecting data on autobiographical memory development. They are an often-used method in data collection due to their richness and depth (Fivush, 2011), demonstrating the essential role that emotional content plays in autobiographical memory. Children and adults tend to remember emotionally charged events (both positive and negative) more vividly than neutral ones. Happy and sad memories often elicit higher levels of detail, clarity, and self-relevance, especially during childhood when memory development is still in progress. Emotionally salient events are more likely to be remembered (Rubin et al., 2008). They also tap into individual differences in both affective and cognitive processes in memory development, making it easy to identify narrative coherence, emotional processing, and identity formation. Emotionally valanced memories help support the development of emotional and social understanding. Children can practice, process, discuss, and label strong emotions, which is essential for social-emotional development. For instance, discussing sad events helps children process negative emotions and teaches coping methods for future events, while discussing happy emotions reinforces a positive identity, shared joy, and social connectedness with others (Fivush et al., 2003). Research also suggests that children -especially young children- struggle with understanding and coping with negative emotions in

particular. In-depth discussions between parents and children about negative emotions are more frequent and may be helpful for children, enabling them to process and learn strategies to cope with these emotions (Laible & Panfile, 2009; Laible et al., 2013); and in that way to regulate their emotions. Another purpose for using emotionally salient memories is that they provide a gateway into the cultural and familial shaping of memory development (Fivush & Wang, 2005). They provide insights into family structure, personal experiences/ideologies, and thought patterns, as well as emotion regulation. Finally, analyzing emotionally salient events in memories provides insight into cognitive and language ability. According to Bohanek et al. (2006), children who told more elaborative emotional narratives (especially about difficult experiences) showed better emotion understanding and resilience. Children's ability to structure coherent, happy, and sad memories is a marker of their narrative skills, which, in turn, impact executive functioning, theory of mind, and language abilities.

1.3. Parental Influences on Autobiographical Memory

1.3.1. Role of Social Interaction in Memory Development

A significant focus of the literature is on how parent-child conversations, particularly those about past shared experiences and emotional memory talk, contribute to children's understanding of themselves. A large body of this research has emphasized that autobiographical memory is not developed in isolation in an internal cognitive process. Instead, it is deeply rooted within social interactions, particularly parent–child conversations about past events (Nelson & Fivush, 2004; Reese et al., 2011). This idea stems from the *Social Cultural Developmental Theory*, which suggests that autobiographical memory is shaped by social interactions, the cultural environment, and the language used to articulate thoughts, emotions, and experiences (Nelson, 1993; Nelson & Fivush, 2004). This highlights the importance of external influences on the development of internal structures in children. This further emphasizes the importance of maternal influences on children's memory development. Mothers engage with their children in multiple ways that influence the development of their autobiographical memory. One effective method of fostering communication is

through the use of conversational styles. A key theme in literature is the role of maternal reminiscing, which refers to how mothers narrate, question, and elaborate on shared past experiences with their children (Reese et al., 1993). These conversations often take place in informal settings throughout the day, such as during meals, while driving/walking, and at bedtime. During reminiscing, mothers draw in joint narration, which not only enhances memory retention but teaches children to structure narratives and emotional content (Fivush & Haden, 2003). Mothers vary widely in how they discuss the past with their children. Research has identified two broad styles of reminiscing: elaborative and repetitive or low-elaborative. These conversations, especially those rich in emotional content and elaborative, play a significant role in the development of children's autobiographical memory. Parents, especially mothers, vary in their reminiscing styles—with some providing rich, elaborative narratives that include open-ended questions and emotion talk, and others using more repetitive or directive styles (Fivush & Haden, 2003). Elaborative parents ask open-ended questions, provide new information, confirm the child's contributions, and help children interpret the emotional meaning of events. In contrast, directive parents rely on yes/no questions and repeat prompts with little elaboration (Fivush et al., 2006; Reese et al., 1993). An elaborative reminiscing style is associated with children's development of detailed, emotionally rich, and coherent autobiographical memories. (Reese et al., 2010). Moreover, reminiscing not only predicts memory accuracy and coherence but also supports emotional regulation and social understanding. Children of elaborative parents consistently demonstrate more detailed and coherent autobiographical memories than children of directive parents (Reese et al., 2011). Importantly, these effects are not confined to preschool years; longitudinal studies show that the benefits of elaborative reminiscing continue into adolescence, fostering the development of narrative identity and emotional insight (Habermas & Reese, 2015).

1.3.2. Demographic Variables that Impact Autobiographical Memory Development

The literature on maternal reminiscing and its impact on the development of autobiographical memory in children highlights the role of demographic factors. In

particular, maternal education, socioeconomic status, and urban residency have been examined as factors that shape the quality and style of mother-child memory conversations.

Maternal education emerges as a strong predictor of the elaborative style of maternal reminiscing. Several studies that range from analyzing toddlers to older children have established that mothers with higher educational attainment is linked to richer, more detailed narratives when reminiscing with their children, in turn, supporting children's language development and more coherent autobiographical memories (Liable et al. 2013; Reese et al., 1993; Reese & Newcombe, 2007). This implies that mothers with higher education levels may naturally be more aware and use more open-ended questions, emotional elaboration, and details when discussing memories and during storytelling (Wu & Jobson, 2019).

Mothers with higher educational levels are associated with higher socioeconomic status. Mothers from higher socioeconomic and educational backgrounds consistently demonstrate higher elaborative reminiscing styles, which are in turn strongly associated with children's elaboration in memory narratives, language, and theory-of-mind development (Reese et al., 2010; Waters et al., 2019). A meta-analysis and longitudinal study that included ethnically and socioeconomically diverse families also established that higher socioeconomic status was associated with higher maternal elaborative reminiscing, regardless of ethnic group (Langley et al., 2017).

A study conducted in Türkiye demonstrated that urban children tend to recall earlier and more detailed events when compared to rural children, possibly due to richer conversational environments and narratively rich interactions. (Göz et al., 2016). Another interesting study that establishes a biological basis for this is one that demonstrated a link between urban upbringing and enhanced neural networks underlying emotional memory, which facilitates more vivid memory retrieval (Zhang et al., 2024). Therefore, urban environments are characterized by individuals with higher education levels, higher socioeconomic status, and more elaborate parental involvement, which all provide a wider exposure for children and impact their autobiographical memory development (Reese et al., 2010).

1.3.3. Maternal Reminiscing and Subjective Perspective Development

Mothers, in particular, have been shown to play a critical role in fostering children's autobiographical memory and emotional development. Research suggests that mothers are more likely than fathers to engage in elaborative reminiscing and use emotionally expressive language (Fivush & Sales, 2006). Children of mothers that engage in more elaborate conversations often demonstrate earlier language skills that allow them to communicate their thoughts, feelings, desires, and intentions (Fivush, 2011). These children are more inclined to recount events from a personal viewpoint that possess subjective perspectives, which involves metacognitive thinking and emotional comprehension that are essential to self-development. The use of subjective perspective—including statements like "I felt nervous" or "I thought she was angry"—is closely tied to maternal use of internal-state language, particularly when mothers reflect on their own feelings during shared experiences. These maternal practices model how to interpret and articulate emotional experiences, which children gradually internalize and adopt in their narratives (Waters et al., 2019). Moreover, social scaffolding also influences not only what children remember but also how they remember, shaping their ability to integrate subjective perspectives into their narratives. Scaffolding is a teaching and support strategy where a more knowledgeable person provides guidance to help a child develop a skill or accomplish a task (Vygotsky, 1978). Through scaffolding, caregivers teach children to sequence and describe events, linking them to broader life themes (Nelson & Fivush, 2004). These skills are essential for constructing a narrative identity and developing emotional competence (Fivush, 2011; Waters et al., 2019). Thus, the social environment, particularly the way children interact with caregivers, plays a central role in shaping the content and function of autobiographical memory during childhood.

1.4. Gender-Role Traits in Mothers and Children

1.4.1. What is Gender? Theoretical Background

The concept of gender has evolved considerably over time, with a variety of perspectives on its definition. Traditionally, most literature categorizes gender into

two opposing variables. This research examines the traits that characterize gender in today's society and the influence these have on expressiveness in memory narratives. Gender-role characteristics, which are generally understood as behaviors and self-perceptions aligned with societal norms for masculinity and femininity, are essential for comprehending how children develop their understanding of gender. Gaining insight into gender-role traits in both parents and children relies on several foundational psychological theories. This thesis utilizes Sandra Bem's (1974) *Gender Schema Theory* to explore gender identity development. Gender Schema Theory (Bem, 1981) proposes that individuals internalize societal expectations surrounding masculinity and femininity through cognitive frameworks referred to as gender schemas. These schemas shape how individuals view themselves and others, influencing their behavior, self-concept, and identity development. Bem further introduced the idea of androgyny, emphasizing that masculinity and femininity are not simply opposite ends of a spectrum but relatively independent dimensions that can coexist within individuals. This view allows for individuals to simultaneously exhibit both masculine and feminine traits to varying degrees (Bem, 1981). Within this framework, masculinity typically includes traits such as independence, assertiveness, and leadership behavior, while femininity includes self-expression, nurturance, and sensitivity (Bem, 1981; Zhang et al., 2024).

The *Social Learning Theory* (Bandura, 1977) adds an important dimension to our understanding of gender role development by highlighting the significance of modeling, observational learning, and reinforcement. According to this theory, children learn by observing and imitating the behaviors of their parents and further by internalizing the norms and expectations related to behaviors considered appropriate for their gender. Mothers' gender-role expressions are especially influential during early and middle childhood, as they are often children's primary attachment figures and caregivers (Bussey & Bandura, 1999).

1.4.2. Masculinity and Femininity as Traits

Masculinity and femininity, as summarized by psychological trait models, refer to different patterns of behaviors, attitudes, and self-perceptions. David Bakan's (1966)

pioneering work proposed two fundamental types of human traits: agentic and communal. Individuals with agentic traits tend to focus on self, autonomy, and accomplishment, whereas those with communal traits focus on others, connectedness, and relationships (Abele & Wojciszke, 2007; Eagly & Wood, 2012). These concepts have also been significant in research on gender roles. According to Bem's Gender Schema Theory (1981), masculinity and femininity are characterized by distinct traits. Masculinity is often associated with agentic traits, including assertiveness, independence, self-reliance, and competitiveness. In contrast, femininity is associated with communal traits, such as warmth, empathy, and emotional expressiveness (Bem, 1981; Spence & Helmreich, 1978). The scale used in this study, Bem Sex Role Inventory (BSRI) is a widely used tool for assessing gender-role traits as independent dimensions from one another, allowing individuals to be classified as masculine, feminine, androgynous, or undifferentiated separately (Bem, 1981).

The masculine and feminine traits discussed in this study are not traditional labels of masculinity and femininity that people typically associate with these concepts. Instead, conceptually they resemble self-construals that individuals use to balance individuation and relatedness in individuals. This framework, initially developed by Markus and Kitayama (1991), was expanded on by İmamoğlu (1998, 2003), who suggests that self-construals are frameworks in individuals that are influenced by culture, environment, and social interactions. Likewise, masculinity and femininity orientations are two distinct but complementary factors in human development, tapping into relatedness and individuation. These labels diverge from traditional definitions of masculinity and femininity, offering a different perspective on understanding how gender traits can emerge as independent but complementary orientations that lead to individual differences. Therefore, these orientations can coexist and adapt flexibly in response to the environment.

1.4.3. Development of Gender-Role Traits in Children

Children form gender-role traits through a combination of biological influences, socialization methods, and cognitive development. By the time they reach preschool

age, children start to show preferences that correspond with societal gender norms, such as the types of toys they choose and the ways they play. These preferences often become more firm during middle childhood (Martin & Ruble, 2004). Children absorb, internalize, and display gendered traits, in part, through repeated exposure to parental modeling. For example, children with mothers who demonstrate a strong sense of femininity might be more likely to display emotional expressiveness and social sensitivity. In contrast, children with highly masculine mothers may exhibit greater assertiveness and autonomy (Wong & Kam, 2022).

The emergence of masculine and feminine traits in children is significantly shaped not only by their biological sex but also by parent–child interactions, cultural influences, and the surrounding environment. Studies suggest that gender-role traits of parents can predict how they speak to children regarding emotional experiences, strategies for discipline, and fostering independence (Endendijk et al., 2016). Nonetheless, there is a relative lack of research that connects explicitly maternal gender-role traits (as measured by trait inventories, such as the BSRI) to the development of similar traits in children. This gap is particularly relevant for understanding how parental gender-role traits affects the use of subjective perspectives in memory, a key developmental aspect related to emotion and identity.

The development of gender roles is a critical aspect of identity formation that begins early in childhood and continues into adolescence. According to Bronfenbrenner's (1986) ecological systems theory, the family serves as a microsystem that significantly influences a child's understanding of gender roles. This influence is strong in early childhood, as parents—especially mothers—model and reinforce behaviors, ideologies, and communication styles associated with gender norms (Layton & Smith, 2017).

Parental beliefs about gender, both implicit and explicit, play a significant role in shaping children's gender development, particularly during the preschool and early school years (Layton & Smith, 2017). While social influences diversify as children grow, gender roles are initially learned within the family and are reinforced through reward, punishment, and observation (Sakallı-Uğurlu, 2002; Witt, 1997). Messages

about gender roles—whether conveyed directly or subtly—may help children understand and apply gender-related expectations in their daily lives.

Given that mothers are often the primary caregivers in many cultures, their self-definitions in terms of femininity and masculinity may have a particularly salient influence on children's internalization of gender roles (Tenenbaum & Leaper, 2002; UNECE, 2021). Literature indicates that gender and school grade level are associated with differences in gender development. As children age, particularly when transitioning into adolescence, they tend to exhibit more traditional gendered attitudes and behaviors (Berk, 2010). This is primarily attributed to social pressure to conform to conventional masculine and feminine roles during the socialization process. For instance, adolescent girls are typically perceived to express more feminine traits than boys, who are more likely to exhibit traditionally masculine traits (Ruble et al., 2006). The onset of puberty heightens self-reflection about gender and increases the pressure to conform to gender norms. Adolescents raised in traditional family structures report feeling these pressures more intensely, with boys often exhibiting more rigid and conservative attitudes toward gender than girls (Ruble et al., 2006).

Demographic variables such as parental education and socioeconomic status have also played a role in shaping gender role development. Research suggests that higher levels of maternal education are associated with less traditional gender role attitudes in children, whereas paternal education seems to have little impact (Aylaz et al., 2014; Çetinkaya, 2013). Additionally, families from higher socioeconomic backgrounds tend to embrace more egalitarian views on gender roles (Schroeder et al., 2019). When both parents are highly educated and the mother is employed, adolescents are more likely to adopt egalitarian gender role behaviors (Fan & Marini, 2000).

Taken together, these findings underscore the need to examine how maternal gender role traits (i.e., femininity and masculinity) influence the development of subjective perspectives in children's autobiographical memory. This area remains understudied, particularly from a longitudinal lens and in relation to developmental stages and gender.

1.5. Influence of Maternal Gender-Role Traits on Parenting

Maternal parenting is influenced by a combination of cultural norms, the unique characteristics of the child, and the parent's traits. Gender-role traits, such as masculinity and femininity, can also play a significant role in shaping different parenting styles. For instance, high femininity in mothers is often evident in nurturing and emotionally supportive interactions. Traits such as these have been linked to mothers with authoritative and permissive parenting styles, which emphasize supportiveness, communication, and emotional responsiveness (Maccoby & Martin, 1983; Putnick et al., 2012). Such mothers may engage in parenting practices that prioritize the emotional and developmental needs of their children, fostering secure attachments and promoting social-emotional growth.

On the other hand, mothers with high masculinity may encourage traits like independence, dominance, and assertiveness in their children (Leaper, 2002). These traits resemble authoritarian or structured parenting that emphasizes discipline and goal-oriented behavior (Endendjik et al., 2016; Özbey & Alisinanoğlu, 2009). While these masculine gender roles are traditionally considered paternal, these traits may equally coexist in mothers, combining both responsiveness/sensitivity and assertiveness/demandingness (Bem, 1981; Lamb et al., 1987), a style that may be particularly adaptive in supporting both autonomy and emotional competence in children (Bem, 1981; Leaper, 2002).

Studies on maternal personality have found that higher levels of expressiveness, which are associated with femininity, tend to lead to warm and responsive parenting. In contrast, higher instrumentality, associated with masculinity, is linked to structured and goal-oriented behaviors (Ruble et al., 2006). These distinctions based on traits provide insight into individual differences in parenting style that go beyond sociodemographic factors, such as education or socioeconomic status. As mentioned before, neither is more important than the other and both are necessary and a part of optimal human development. However, despite the theoretical importance of these traits, there is still limited empirical research directly connecting maternal gender-role traits to parenting practices, especially those that involve emotion socialization

and narrative development. A study by Katz-Wise et al. (2010) found that mothers high in femininity were more emotionally expressive and used more affective language with their children. Such behaviors are key components of an elaborative reminiscing style, which, in turn, supports the development of rich autobiographical narratives in children (Fivush & Haden, 2003).

1.5.1. Influence on Reminiscing Style and Emotion Socialization

Maternal gender-role traits are likely to influence how mothers engage in reminiscing and social-emotional exchanges with their children. Mothers who demonstrate high femininity, placing importance on connection and emotional expression, may be more likely to engage in detailed discussions that include subjective perspectives, such as feelings, thoughts, and intentions (Fivush, 2011). Conversely, mothers who exhibit high masculinity might focus on problem-solving, action-oriented details, or lessons learned, potentially emphasizing autonomy and/or resilience. These maternal traits can shape not only the nature of reminiscing conversations but also how mothers enable their children's developing sense of self and emotional reflection.

Recent research also suggests that maternal gender-role traits interact with child gender in influencing parenting styles. For example, Wong and Kam (2022) discovered that mothers' traditional gender-role beliefs influenced both the quantity and type of emotional conversations differently for sons and daughters, often reinforcing behaviors aligned with traditional gender norms. This may mean that mothers high in femininity offer more emotionally expressive guidance to daughters, while being less expressive with sons, reinforcing gender-typical emotionality. However, androgynous mothers—those who score high in both masculinity and femininity—may provide a more balanced and flexible scaffolding style, supporting both emotional expression and independence in children of all genders (Bem, 1981; McNeil & Zeman, 2023). Overall, literature repeatedly stresses that the nuanced differences in children's autobiographical narratives are deeply embedded in gender role socialization.

While most research focuses on parental influences, children's gender role traits also contribute to how they narrate personal memories. With parental influence and social

feedback from parents and peers, children may adopt traits typically similar to those expected of their gender; this further strengthens their narrative habits (Fivush & Haden, 2003; Reese & Fivush, 2008). Children higher in feminine qualities are associated with earlier, more emotionally elaborated, and socially detailed memories (Fivush, 2011; McLean & Breen, 2009). In contrast, children with higher masculine qualities may prioritize memory narratives that highlight autonomy, but may provide less emotional elaboration (Reese et al., 2011; Wang, 2001). Similar to that of maternal outcomes in research, children high in femininity may also be more likely to adopt higher use of subjective perspective in their memory narratives. In contrast, those in high masculinity may adopt a more behavioral narrative style (McLean & Fournier, 2008).

1.5.2. Influence of Parental Gender Role-Traits on Age of Memory Recall

Children's ability to encode, store, and retrieve autobiographical memories is closely linked to the development of language, self-concept, and temporal understanding (Nelson & Fivush, 2004). Therefore, children who experience more elaborative maternal reminiscing, which includes open-ended questions, emotion talk, and perspective-taking, tend to recall earlier and more detailed autobiographical memories than children whose mothers use a repetitive or fact-based style (Reese et al., 2010).

Gender also appears to influence the timing and richness of early memory recall. Multiple studies have shown that girls tend to recall memories from earlier ages than boys, often with greater emotional and social detail (Fivush & Haden, 2005; Wang, 2008). This is partly due to gendered socialization practices, where girls are more often engaged in emotionally rich, elaborative conversations with caregivers than boys (Buckner & Fivush, 1998; Sales et al., 2003).

Mothers are more likely to discuss emotions, interpersonal themes, and mental states with daughters than with sons (Fivush, 1991; Reese & Fivush, 1993), which in turn fosters the development of earlier and more coherent autobiographical memories in girls. These gendered trends correspond with larger cultural standards that link

communal qualities (such as sensitivity and expressiveness) with girls and agentic qualities (like independence and endurance) with boys (Bem, 1981; Leaper, 2002). Conversely, mothers who exhibit more masculine or agentic characteristics might place a greater emphasis on achievement or independence rather than emotional sharing, which can delay or restrict the child's development of autobiographical memory (Wang, 2006).

Moreover, the alignment of gender roles between a mother and her child may influence how early and richly memories are recalled. For example, a highly feminine mother might engage more deeply in emotion-focused discussions with her daughter than with her son, potentially reinforcing gender differences in memory development (Fivush, 1998).

1.6. Gaps in the Literature and Need for the Current Study

Research on autobiographical memory development in childhood has highlighted the critical role of parent-child social interactions—particularly maternal reminiscing—in shaping children's ability to narrate and organize personal experiences (Fivush et al., 2006; Nelson & Fivush, 2004). Much of this work has focused on the emotional tone, elaboration, and coherence of maternal reminiscing. However, relatively few studies have explored how maternal gender-role traits, such as masculinity and femininity, influence the development of children's autobiographical memory narratives. Given that gender-role orientations correspond with communication style, emotional expression, and parenting behavior (Bem, 1981; Leaper, 2002), it is likely that mothers' internalized gender-role traits shape the kinds of narratives they construct with their children and the perspectives they model. While these theoretical patterns are compelling, few empirical studies have directly tested how maternal masculinity and femininity impact children's use of subjective perspectives in autobiographical memory. This presents an important gap in the literature. Maternal reminiscing that includes elaborate details predicts richer and more emotionally complex narratives in children. Understanding how individual maternal traits contribute to these styles can enhance developmental theory and inform interventions designed to promote emotional literacy and identity development.

Moreover, while some studies have investigated how parental reminiscing styles influence children's memory development (e.g., Reese et al., 2010), the specific use of maternal cognitive and emotion talk, the use of subjective perspectives, and the impact it has on the child's use of subjective perspectives remains underexplored. Subjective perspective use is a sophisticated narrative skill that develops gradually and is influenced by both cognitive and social factors (Habermas & Bluck, 2000; Wang, 2007). However, the link between maternal gender-role traits and children's use of subjective perspectives in autobiographical memory remains a significant gap in the literature.

Additionally, most studies in this area rely on cross-sectional designs and focus primarily on early childhood (e.g., preschool or kindergarten), with limited attention paid to school-age children and adolescents, whose memory and gender-role development may follow different paths (Peterson et al., 2011). This leaves open questions about how autobiographical memory—especially the use of subjective perspectives—evolves across school levels and whether these developmental trends differ for boys and girls, given documented gender differences in narrative expression (Buckner & Fivush, 2000).

The present longitudinal study aspires to address these gaps by examining how maternal masculinity and femininity predict the development of subjective perspective use and the age at which narratives are remembered in children's autobiographical memories across two time points. In doing so, it incorporates a developmental perspective by analyzing differences across school levels (e.g., early childhood vs. later childhood) and between girls and boys. By integrating gender-role theory with research on memory development, this study makes a novel contribution to understanding how parental gendered traits influence children's narrative identity and the construction of their autobiographical memories.

1.7. Study Aim

The present study aims to investigate how maternal gender role traits—specifically masculine and feminine dimensions—influence the development of gender role traits

in children and, in turn, shape children's use of subjective perspectives in autobiographical memory narratives. It also explores how gender role traits influence the age of memory, as reported in memory narratives by participants. Grounded in gender schema theory (Bem, 1981) and social interactionist models of autobiographical memory development (Nelson & Fivush, 2004), this study explores whether and how these maternal characteristics predict the emotional and cognitive style with which children recount their personal experiences.

Moreover, the study employs a longitudinal design with two time points, enabling the examination of developmental changes in autobiographical memory content over time. The study further investigates whether these relationships vary by child gender and educational level (e.g., elementary, middle, and high school), given previous findings that gender differences in narrative styles and memory elaboration emerge early and evolve with age (Fivush et al., 2006).

By integrating frameworks of gender-role traits and narrative development, this research aims to address existing gaps in the literature regarding the interaction between parental gender-role traits and the internalization of narrative self-expression styles in children. In doing so, the study contributes to a deeper understanding of how autobiographical memory functions as a site for both identity development and the intergenerational transmission of gendered meaning-making.

In developmental psychology, maternal expressions of masculine and feminine traits may influence how children perceive and internalize gender roles. Mothers high in feminine qualities may engage in warm, elaborative reminiscing practices, while those with greater masculine traits might emphasize independence or assertiveness in narratives (Fivush, 2011; McLean et al., 2007).

These maternal gender role traits may also shape how children adopt subjective perspectives when recalling autobiographical memories and the age at which they remember these memories, a process influenced by both parental scaffolding and gender-role modeling (Reese & Fivush, 2008).

Taken together, this study aims to answer: How do maternal gender-role traits (masculinity and femininity) influence gender-role traits in children? How do maternal gender-role traits impact the use of subjective perspectives, cognitive and emotional expression, and age of memory recall in memory narratives? To what extent do maternal and child masculinity and femininity at Time 1 predict maternal and child use of subjective perspectives at Time 2? Finally, which factors impact the use of subjective perspectives and the age of memory recall in children?

To examine these questions, this study employs a structural equation model, in which maternal gender roles—masculinity and femininity—are modeled as direct predictors of child masculinity and femininity, which in turn are hypothesized to influence the use of subjective perspectives and the age of memory recall. Child age and gender are included as moderating variables, and the interactions between child gender roles and age, as well as child gender roles and gender, are examined to further analyze how age and gender interact to impact child outcomes (See Figure 1).

Given existing findings in the literature that individuals exhibit individual differences, it is expected that there will also be individual differences in children's outcomes for gender-role traits, use of subjective perspectives, and age of memory recall. Mothers with greater individual differences in, for instance, leadership and assertiveness (as defined by masculinity) and mothers who show individual differences in nurturance and sensitivity (as defined by femininity) should have children who exhibit similar characteristics.

Accordingly, the hypotheses of the current study are as follows: First, maternal masculinity and femininity are expected to positively influence the development of masculinity and femininity in children, such that maternal masculinity will impact child masculinity, and maternal femininity will impact child femininity. Second, mothers high in both masculinity and femininity are expected to have a positive impact on the use of subjective perspectives in autobiographical memories in children, particularly in daughters. Finally, greater maternal masculinity and femininity are hypothesized to predict an earlier age of memories in children.

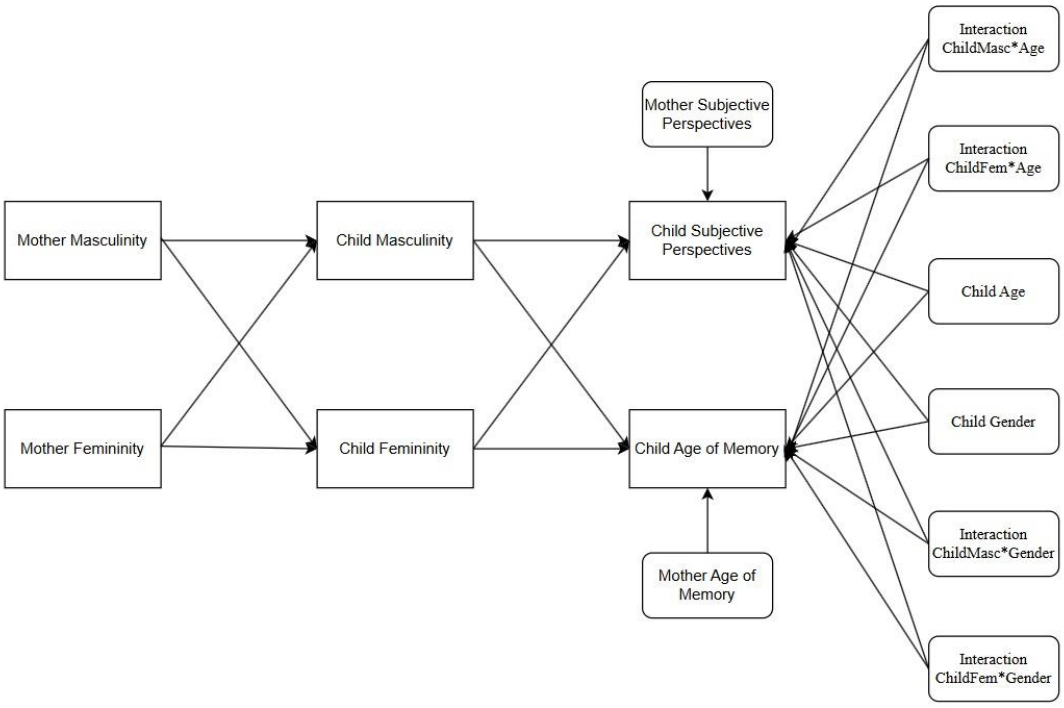

Figure 1. Proposed Structural Equation Model

CHAPTER 2

METHOD

2.1. Participants

2.1.1. Time 1

The current study was carried out as a component of a nationwide longitudinal research initiative by the Scientific and Technological Research Council of Türkiye (TUBITAK) known as the "Turkish Family, Child & Adolescent Project." The project collaborators included Middle East Technical University, Boğaziçi University, and Ege University. 180 schools in 62 cities were selected by the Turkish Statistical Institute (TUIK) based on the population size of those cities, the school sizes and number of students in those schools. The study aimed to collect data at two different time points a year apart. The Time 1 data collection period was between December 2021- June 2022.

Mothers and their children were recruited on a voluntary basis. Exclusion criteria included children whose mothers were deceased, children who did not live with their biological mother (stepmothers/adopting mothers/grandmothers were not included), mothers that had a serious physical or psychological impairment, children in special education, children with a diagnosis/disability, and immigrant children. When children had twins in the same class or grade or had siblings of different ages in the same school, only one child per family was randomly selected. This study only included the Turkish population, specifically native speakers, in order to ensure accurate comprehension of the scales used. Thus other ethnic groups who were not native speakers were excluded. During Time 1 of the project there were a total of 6,211 children, 5,988 mothers, and 865 fathers. With this many participants

approximately 50,000 memories were analyzed during the data cleaning process. At the end of the data cleaning process there was a total of 9,460 child and 10,132 maternal memories to code.

2.1.2. Time 2

Time 2 data collection occurred between March-June 2023. One year later, the same participants from Time 1 were sought out. A total of 4,351 children, 3,955 mothers and 246 fathers from 55 cities were included in this study. Due to the unfortunate earthquake on February 6, 2024, 8 regions in Türkiye were declared in a state of emergency. Due to the great damage and loss in these regions, both physical and psychological, these regions that included 26 schools and 686 participants were removed from the study. Further, there were 1,045 participants that were not included in Time 2 due to reasons such as researchers not being able to reach the participants (change of phone number), students moving to different cities, family matters, etc.

Participants that changed schools from 4^{th} to 5^{th} grade and from 8^{th} to 9^{th} grade were found. The aim was to be able to reach as many of these students as possible if not half. The new school administrations were contacted and informed of the project and its goals. Appropriate times and dates were arranged so that the researchers may go to the schools. If the students wanted to participate but the researchers were not able to go to the schools due to travel reasons, the students were sent the link to a phone number of choice and were incorporated in the study in this way. Following data cleaning at Time 2, a total of 6,916 child memory narratives and 6,300 maternal memory narratives were retained for coding. Combined across Time 1 and Time 2, this resulted in 32,988 mother-child memory narratives available for coding.

2.1.3. Participants for Analyses

Due to the extensive amount of qualitative data obtained, a subsample a total sample of 2,656 mother-child pairs that was selected by recruiting four students from each grade level in participating schools. Inclusion criteria for the subsample required that both mothers and children provided matching memory narratives at both Time 1 and

Time 2. For purposes of this study, it is important to note that after Time 1 and Time 2 data were collected, the data sets were separated into happy and sad memories that had matching mother-child dyads between Time 1 and Time 2. Therefore, there were two separate data sets, one for happy memories and one for sad memories. was selected to be incorporated in the data analyses. After the matching of mother child pairs between Time 1 and Time 2, the total participants for happy memories for this study was 764 mother-child dyads. Students' age ranged between 7 and 17 (*M*=12.31, *SD*=2.46) and 50.9% were female. The total participants for sad memories included in this study were 845 mother-child dyads. Students' age ranged between 7 and 18 (*M*=12.51, *SD*=2.53) and 57.6% were female. The total sample demographics is below.

Table 1. Demographic Characteristics of Mother-Child in Happy Memories

Demographic Variables	***Mean***	***SS***	***Min.***	***Max.***
Child Age	12.31	2.46	7	17
Mother Age	38.84	5.51	22	62
	N	***%***		
Mother-Child Dyads	764			
Child Gender				
Girls	389	50.9%		
Boys	375	49.1%		
School Level				
Elementary	190	24.9%		
Middle	370	48.4%		
High School	204	26.7%		
Grade Level				
3rd grade	90	11.8		
4th grade	100	13.1		
5th grade	98	12.8		
6th grade	115	15.1		
7th grade	85	11.1		
8th grade	72	9.4		
9th grade	76	9.9		
10th grade	69	9.0		
11th grade	59	7.7		
Mother Education				
Illiterate	18	2.4		
Literate	13	1.7		
Elementary	179	23.4		
Middle School	115	15.1		
High School	237	31.0		
College	187	24.5		

Table 1. (continued)

Graduate School	13	1.7
PhD	2	.3
Mother Marital Status		
Married (to father of participant child)	716	93.7
Divorced	32	4.2
Widow	6	.8
Remarried	10	1.3

Table 2. Demographic Characteristics of Mother-Child in Sad Memories

Demographic Variables	***Mean***	***SS***	***Min.***	***Max.***
Child Age	12.51	2.53	7	18
Mother Age	39.19	5.66	25	62
	N	***%***		
Mother-Child Dyads	845			
Child Gender				
Girls	487	57.6		
Boys	358	42.4		
School Level				
Elementary	203	24		
Middle	385	45.6		
High School	257	30.4		
Grade Level				
3rd grade	96	11.4		
4th grade	107	12.7		
5th grade	96	11.4		
6th grade	109	12.9		
7th grade	100	11.8		
8th grade	80	9.5		
9th grade	94	11.1		
10th grade	93	11.0		
11th grade	70	8.3		
Mother Education				
Illiterate	15	1.8		
Literate	15	1.8		
Elementary	208	24.6		
Middle School	126	14.9		
High School	266	31.5		
College	201	23.8		
Graduate School	11	1.3		
PhD	3	.4		
Mother Marital Status				
Married (to father of participant child)	791	93.6		
Divorced	32	3.8		
Widow	14	1.7		
Remarried	8	.9		

2.2. Measures

2.2.1. Child Measures

2.2.1.1. Demographic Information Form

In the Demographics Information Form, children were asked information about their age, gender, grade level, and where they live.

2.2.1.2. The BEM Sex Role Inventory

The BEM Sex Role Inventory was given to children in order to assess their perceived gender roles. This scale was given to students starting from the 3rd grade. It was developed by Sandra Bem to measure an individual's identification with traditionally defined masculine and feminine characteristics based on the gender schema theory. This scale measures masculinity and femininity as two independent dimensions and not opposite ends of a single continuum. Individuals can score high or low on both, initially leading to four gender role types: Masculine (high masculinity, low femininity), feminine (high femininity, low masculinity), androgynous (high masculinity, high femininity), and undifferentiated (low masculinity, low femininity) (Bem, 1974). The short form was used for this study also modified by Bem (1981) which was condensed into 10 traits traditionally viewed as more masculine and 10 traits traditionally viewed as feminine. Individuals rate themselves on a 4-point Likert scale (from "never" to "always"). Separate scores are calculated for masculinity and femininity. The adapted Turkish version of the Bem Sex Role Inventory (BSRI) used for this study was conducted by Özkan and Lajunen in 2005 which also consists of two subscales (feminine traits, masculine traits) and a total of 20 items. Item 20 of the BSRI for children, which states, "I like doing things that girls and women do," was removed based on feedback from the Ministry of National Education (MEB), reducing the scale to 19 items. The subscales were evaluated separately, and no total score was calculated. Items for masculinity refer to the expectations of what masculinity means for cultural and societal norms. For example, if you are masculine you are "willing to take a stand," "forceful," and "dominant."

The feminine dimension refers to the expectations that includes descriptions such as being “gentle,” “compassionate,” and “tender.” In the current study, Cronbach’s alpha reliability coefficients were found to be .77 for the feminine traits subscale and .79 for the masculine traits subscale for Time 1. Once the reliability values of the scale were examined for Time 2, the Cronbach’s alpha reliability coefficient was found to be .80 for the feminine traits subscale and .81 for the masculine traits subscale.

2.2.1.3. Autobiographical Memory Questionnaire

Children were given the Autobiographical Memory Questionnaire to assess their memories. They were asked to write down one emotionally positive and one emotionally negative memory in detail. Literature on autobiographical memory development shows that emotionally positive and negative events serve distinct functions (Fivush, 2007). The elicitation of both positive and negative emotional memories from participants is a commonly employed method in this field. When the questionnaire was given to participants, the prompt was as follows, “Now we would like you to think about your life up to this point. Could you tell us about an experience that made you happy/unhappy? Please describe it in as much detail as possible.” After each memory, participants were asked the age in which they experienced the memory they had just recalled. Further, they were asked to evaluate each memory through complementary questions regarding its emotional tone (how positive or negative they felt about the memory), ease of narration (how easy it was for them to explain the memory), and clarity (how easy/clear it was for them to remember the memory).

2.2.2. Maternal Measures

2.2.2.1. Demographic Information Form

The Demographic Information Form was also given to mothers. In this form, mothers were asked about their education and marital status, their perceived socioeconomic status, and the geographical region that they live in.

2.2.2.2. The BEM Sex Role Inventory

The Bem Sex Role Inventory (BSRI) was also given to mothers in the adult form. It was also adapted into Turkish by Özkan and Lajunen (2005) and was used with two subscales (feminine traits, masculine traits) and a total of 20 items. Mothers rate themselves on a 5-point Likert scale (from "I strongly don't agree" to "I strongly agree"). In this study, the subscales were evaluated separately, and no total score was calculated.

Using data collected between December 2021 and June 2022 (Time 1), the Cronbach's alpha reliability coefficients for the scale were found to be .84 for the feminine traits subscale and .79 for the masculine traits subscale in mothers.

With data collected between March and June 2023 (Time 2), the Cronbach's alpha reliability coefficients for the scale were found to be .87 for the feminine traits subscale and .77 for the masculine traits subscale in mothers.

2.2.2.3. The Autobiographical Memory Questionnaire

The Autobiographical Memory Questionnaire was also given to mothers. This questionnaire was the same as the one given to the children.

2.3. Procedure

In order to contextualize the procedures used in this study, it is important to provide background information on the larger project. The project was initially designed to collect memory narratives from a selected subsample of participants through face-to-face interviews with mothers, using audio-recording devices. However, shortly before the onset of the COVID-19 pandemic, many mothers expressed discomfort with having their memories recorded, resulting in a lower-than-expected sample size. Data collection was then paused due to pandemic-related restrictions. Once ethical approval was renewed and data collection resumed after pandemic restrictions were lifted, the research team determined that, to reach the intended sample size and to

increase the depth and richness of the memory narratives it would be necessary to transition to a written data collection format and include all participants enrolled in the project.

2.3.1. Time 1

During the project preparation phase, all questionnaires intended for online distribution were uploaded, organized, and tested using Qualtrics. Links were rigorously tested to eliminate potential errors. The questionnaires were structured so that, following the completion of demographic information, all remaining measures were presented in separate blocks. The order of these blocks was randomized for each participant, ensuring that no single measure consistently appeared first or last. This randomization procedure was implemented to minimize order effects and to provide equal accessibility of all measures across participants

The project aimed to comprehensively examine children's cognitive, social, emotional, and academic development in relation to familial and environmental factors. The study involved mothers, fathers, and their children aged 6-17 years (1st-11th grade) residing in both urban and rural regions of Türkiye. Schools were selected by the Turkish Statistical Institute (TÜIK) from 12 statistical regions, based on Türkiye's Nomenclature of Territorial Units for Statistics (NUTS). A probability proportional to size (PPS) sampling methods was used to account for school size and regional student population, thus attempting to provide a representative sample. Based on this method, 62 cities and 180 school were selected; however, due to accessibility constraints and limited student participation, data were collected from 61 cities and 185 schools.

Prior to data collection, ethical approval was obtained from Middle East Technical University and the Ministry of National Education (MEB). Following these approvals, the MEB distributed official permission forms to selected schools. Researchers subsequently contacted school administrators to explain the study's objectives and procedures. Researchers then visited the schools and used a mobile random number generator application to select participating classrooms. If selected

schools could not be reached or had low participations, previously identified substitute schools were contacted. The sampling goal was to recruit 10 participants from each grade level; 40 participants from elementary schools and 30 from each middle and high school. To meet this goal, two classes were randomly selected from per grade level. Teachers shared parental consent forms via WhatsApp groups.

Mothers who returned completed consent forms were contacted by phone for a detailed explanation of the study. They were sent survey links based on their preferred communication method and timing. Participants were assigned unique identification codes derived from the state license plate number, school code, grade, and class. The same code was used for both mother and child, enabling accurate matching of responses. Once mothers completed the questionnaires, researchers scheduled visits to schools to collect data from the children. Tablets were provided, and trained research assistants were present to assist children and answer questions.

2.3.2. Time 2

The same procedures were followed during the second wave of data collection. Ethical approval was again obtained from the Ministry of Education (MEB) in September 2022. Once approval was granted, the same schools were contacted to restart data collection. Following data collection, an initial data cleaning process was conducted between June and August 2023. During this process, researchers manually reviewed approximately 50,000 memory narratives. Each narrative was evaluated to determine whether it met the criteria for codability. After completing this screening and selecting the subsample, a total of 10,628 maternal memories (both positive and negative) were analyzed and classified into four categories based on content:

- **Episodic**: Specific, event-based experiences.
- **Semantic**: Generalized or extended events.
- **Invalid**: General or unrelated statements with no memory content.
- **No memory**: Participant did not provide a memory or chose not to share one.

Only episodic memories were included in further analyses. In Time 1, 2,063 (78%) mothers wrote a positive episodic memory, while 1,991 (75%) wrote a negative

episodic memory. In Time 2, 1,607 mothers (61%) provided a positive episodic memory, and 1,613 (61%) a negative one.

In terms of semantic responses, 228 mothers (9%) wrote a semantically structured content for positive memories in Time 1, and 175 (7%) did so in Time 2. For negative memories, 186 participants (7%) wrote semantically structured responses in Time 1, and 129 (5%) in Time 2. Mothers who either did not provide a memory or submitted an invalid response accounted for 365 (14%) of positive memories in Time 1 and 874 (33%) in Time 2. The number of mothers who did not write a memory or provided an invalid memory for negative memories was 479 (18%) in Time 1 and 914 (34%) in Time 2.

Table 3. Memory Content for Time 1 and Time 2 in Happy and Sad Memories for Mothers and Children

Group	***Type of Memory***	***Time 1-Happy***	***Time 1-Sad***	***Time 2-Happy***	***Time 2-Sad***
Mothers	Episodic	2,063 (78%)	1,991 (75%)	1,067 (61%)	1,613 (61%)
	Semantic	228 (9%)	186 (7%)	175 (7%)	129 (5%)
	Invalid/No Memory	365 (14%)	479 (18%)	874 (33%)	914 (34%)
Children	Episodic	1,729 (65%)	1,895 (71%)	1,360 (51%)	1,448 (55%)
	Semantic	194 (7%)	46 (2%)	178 (7%)	86 (3%)
	Invalid/No Memory	734 (28%)	715 (217%)	1,118 42%)	1,122 (42%)

Among the selected sub-sample of children and adolescents, the number of individuals who wrote a positive episodic memory at Time 1 was 1,729 (65%), and those who wrote a negative episodic memory was 1,895 (71%). At Time 2, the number of individuals who wrote a positive episodic memory was 1,360 (51%), and those who wrote a negative episodic memory was 1,448 (55%).

Additionally, it was found that 194 individuals (7%) wrote semantic content instead of an episodic memory for positive memories at Time 1, and 178 individuals (7%) did so at Time 2. For negative memories, 46 individuals (2%) wrote semantic content at Time 1, and 86 individuals (3%) at Time 2.

The number of children and adolescents who did not write a memory or provided invalid content in the positive memory section was 734 (28%) at Time 1 and 1,118 (42%) at Time 2. For the negative memory section, the number of individuals who did not write a memory or provided invalid content was 715 (27%) at Time 1 and 1,122 (42%) at Time 2.

2.3.3. Coding Process

After data completion was completed and content coding training had been concluded, all episodic memory responses were transferred to a separate database and coded using *MAXQDA* software.

Memories were coded based on a coding technique called subjective perspectives, which included the identification and quantification of affective and cognitive states.

- **Affective states** included any references to emotional evaluations (e.g., enjoyable, sensitive), explicit emotions (e.g., happy, sad, angry), or emotional behaviors (e.g. fighting, hugging).
    - *Example:* "I was very angry after having a fight with my brother." Here, *angry* and *fight* were coded as affective indicators.
- **Cognitive states** included references to mental processes (e.g., think, realize) or internal motivations (e.g., want, need, would like).
    - *Example:* "I remember everything my mother told me and I will never forget it." In this case, *remember* and *forget* were coded as cognitive indicators.

For each memory, the number of affective and cognitive indicators was summed to calculate a total subjective perspectives score. This process was applied to both maternal and child memory responses (Reese, Fivush et al., 2017). Descriptive

analyses revealed that the mean number of words reflecting subjective perspectives in children's happy memory narratives was $M = 2.84$ at Time 1 and $M = 2.64$ at Time 2, whereas mothers used $M = 3.65$ words at Time 1 and $M = 3.18$ at Time 2. For sad memory narratives, children's mean subjective perspective use was $M = 3.28$ at Time 1 and $M = 3.32$ at Time 2, while mothers' mean use was $M = 4.29$ at Time 1 and $M = 3.80$ at Time 2.

Interrater reliability was established through a second coder who was blind to all participant information. An intraclass correlation coefficient (ICC) was calculated to assess the consistency between the two raters' continuous scores. The analysis revealed excellent interrater reliability, ICC (2,1) = .97, 95% CI [.97, .98], $p < .001$. After the coding process was completed, the total subjective perspectives scores were transferred from MAXQDA into the main dataset and prepared for analysis.

2.3.4. Data Analysis

The data cleaning process took place during the summer and fall following each data collection period. First, participants who had duplicate entries-due to completing the questionnaires multiple times-were identified, and only one response per participant code was retained. Second, incomplete or entirely blank questionnaires were removed from the dataset. Third, researcher notes recorded during data collection were used to identify and correct any inconsistencies or known errors.

The data was reviewed multiple times to detect and address missing, incomplete, or inaccurate entries. This iterative cleaning process ensures the final dataset was accurate, consistent, and ready for statistical analysis. Finally, all measurements were centered and calculated based on mean scores. Prior to conducting the main model analyses, descriptive statistics, Pearson correlation, and hierarchical regression analyses were performed. Further, certain analyses were conducted using data from a single time point, whereas others incorporated data from both Time 1 and Time 2. This approach was chosen to remain consistent with the primary objectives and analytic framework of the larger project. All analyses were conducted using IBM SPSS Statistics Version 28.0.0.0 and IBM SPSS Amos Version 24.

CHAPTER 3

RESULTS

The results of this study are presented in four parts. The first part includes the descriptive statistics and bivariate correlations between the main study variables for the total sample. Since the data were analyzed separately for happy and sad memory conditions, these analyses were conducted twice. The second part of this section addresses the first hypothesis, 1) that both high maternal masculinity and femininity impact the child's masculinity and femininity positively. The third part includes the second and third hypotheses of this study: 2) that masculinity and femininity in mothers will have a positive impact on the use of a child's subjective perspectives, and 3) that high masculinity and femininity will predict an earlier age of memory recall in children. The final part of this section includes regression analyses of the factors that impact the subjective perspectives and age of memory recall of children in Time 2.

A total of four path analyses were conducted to examine the impact of gender roles on a child's use of subjective perspectives and age of memory recall. The analyses were categorized into elementary, middle, and high school levels to enhance understanding of developmental differences in children.

3.1. Preliminary Analyses

Statistical analyses were conducted using IBM SPSS Statistics Version 28.0.0.0 and IBM SPSS Amos Version 24. Descriptive statistics, including means, standard deviations, and bivariate correlations for all study variables, are presented in Table 1. All assumptions of multivariate analyses were conducted based on the principles of Tabachnick and Fidell (2007). In terms of multivariate normality, the sample size

exceeded the recommended minimum number of 200 participants for adequate estimation. All scale measures exhibited internal consistency, with Cronbach's alpha coefficients exceeding .70. There were no issues of multicollinearity detected, as all variance inflation factor (VIF) values were below 2.5. Missing data were minimal (<5%) and were addressed using listwise deletion. The assumptions of normality and linearity were evaluated and found to be satisfactory. Outlier analysis and normality checks indicated no significant violations. Preliminary analyses, which included descriptive statistics and Pearson correlation coefficients, were conducted to assess the relationship among variables. Additionally, diagnostics for multicollinearity and assumption testing confirmed that the data met the necessary criteria for further analyses.

3.2. Correlations of Study Variables

3.2.1. Correlation Between Variables of Mother-Child Dyads for Happy Memories

Bivariate Pearson correlation analyses were conducted to examine the relationship among primary study variables within the happy memory condition. Results are organized separately by school level: elementary, middle, and high school. Consistent with Cohen's (1988) guidelines, correlations are interpreted as small ($r \approx .10$), moderate ($r \approx .30$), or large ($r \geq .50$). Tables 3, 4, and 5 present the full correlation matrices.

3.2.1.1. At the Elementary School Level

Regarding the correlations for *gender-role associations*, significant positive associations emerged between gender-role traits in mother-child dyads. Children's masculinity and femininity were strongly positively correlated ($r = .54$, $p < .001$), indicating that these traits co-occur rather than exist on opposite ends of a spectrum. Maternal femininity was positively associated with child masculinity ($r = .15$, $p = .03$). As maternal femininity increased, so did child masculinity. Notably, maternal masculinity and femininity were themselves strongly correlated ($r = .56$, $p < .001$); the higher the mother's masculinity, the higher their femininity as well.

Regarding the correlations between *demographic variables*, geographical region was positively associated with both child masculinity (r = .15, p = .04) and maternal masculinity (r = .18, p = .01), suggesting that families in urban areas displayed higher masculine traits. Maternal education (r = .37, p < .001) and perceived socioeconomic status (r = .21, p = .004) were also positively associated with urban location. Mothers in urban areas had higher education levels and perceived higher SES levels. No significant associations were found between child age and gender traits.

Regarding the correlations on *subjective perspectives* in memory narratives, children's use of subjective perspectives was negatively associated with gender (r = -.23, p < .001), indicating that girls in elementary school used more subjective perspectives in their happy memory narratives. Child grade level was positively associated with the use of subjective perspectives (r = .16, p = .03). As grade levels increased, so did the use of subjective perspectives. Maternal use of subjective perspectives was positively correlated with both maternal masculinity (r = .20, p= .006) and femininity (r = .16, p = .02). Finally, both children (r = .17, p = .02) and mothers (r = .18, p = .01) living in urban areas presented a greater use of subjective perspectives.Regarding the correlations on reported *age of memory recall*, the child's age of memory was positively correlated with the child's age (r = .25, p < .001). Older children reported higher ages in their memory narratives. Maternal age of memory was also positively correlated to child age of memory (r = .16, p = .03). However, it negatively correlated with maternal masculinity (r = -.17, p = .02) and femininity (r = -.23, p = .001), suggesting that mothers with stronger gender-role traits recalled memories from earlier ages.

3.2.1.2. At the Middle School Level

Regarding the correlation on *gender-role associations*, children's masculinity and femininity remained significantly positively correlated (r = .52, p < .001). Maternal masculinity was positively associated with both child masculinity (r = .16, p = .002) and femininity (r = .11, p = .04). Maternal masculinity and femininity were also positively correlated (r = .44, p < .001). Regarding the correlations between *demographic variables*, maternal education was negatively correlated with mothers

femininity (r = -.13, p = .02). Maternal perceived socioeconomic status was negatively correlated with child age (r = -.11, p = .04) and grade level (r = -.12, p = .02), but positively correlated with maternal education (r = .23, p < .001). Geographical region was again positively associated with maternal education (r = .24, p < .001). No significant associations emerged between child age and gender traits.Regarding the correlations on *subjective perspectives*, child use of subjective perspectives was positively correlated with child masculinity (r = .16, p = .003), femininity (r = .12, p = .02), child age (r = .13, p = .01), grade level (r = .13, p = .01), and maternal perceived socioeconomic status (r = .01, p < .001). Children with higher masculinity, femininity and greater ages presented with higher use of subjective perspectives. Child use of subjective perspectives was negatively correlated with child gender (r = -.15, p = .004), again indicating higher subjective perspective use among girls. Maternal use of subjective perspectives was positively correlated with child masculinity (r = .10, p = .05), child use of subjective perspectives (r = .14, p = .009), and maternal education (r = .12, p = .02). Regarding the correlations on reported *age of memory recall*, the child's age of memory was positively associated with the child's age (r = .19, p < .001) and grade level (r = .21, p < .001). No significant correlations were found with maternal age of memory recall in this group.

3.2.1.3. At the High School Level

Regarding the correlations on *gender-role associations*, children's masculinity and femininity were significantly correlated (r = .52, p < .001). Maternal femininity was positively associated with both child masculinity (r = .16, p = .02) and femininity (r = .23, p = .001). Maternal masculinity, in contrast, was positively related only to child masculinity (r = .23, p < .001), but not femininity. Maternal masculinity and femininity remained significantly associated (r = .37, p < .001). Regarding the correlations between *demographic variables*, maternal perceived socioeconomic status was positively associated with maternal masculinity (r = .18, p = .01) and maternal education (r = .18, p = .01). Geographical region was positively associated with both child age (r = .16, p = .02) and maternal education (r = .32, p < .001), indicating again that urban residence corresponded with higher education and older children.

Regarding the correlations on *subjective perspectives* in memory narratives, children's use of subjective perspectives was positively associated with both masculinity (r = .15, p = .04) and femininity (r = .20, p = .004), suggesting that stronger gender traits, regardless of type, were more likely to engage in reflective narrative perspectives. Maternal use of subjective perspectives was positively associated with maternal masculinity (r =.18, p =.01) and child age (r = .18, p = .01). The older the children were, the more the mothers used subjective perspectives in their memories. Maternal education was positively associated with maternal (r = .26, p < .001) and child use of subjective perspectives (r = .16, p = .03).

Regarding the correlations on reported *age of memory recall*, as expected, child age of memory was positively associated with both child age (r = .23, p = .001) and grade level (r = .21, p = .003). Maternal reported age of memory was positively associated with maternal education (r = .17, p = .02).

3.2.2. Correlation Between Variables of Mother-Child Dyads for Sad Memories

Bivariate Pearson correlations were conducted to examine the relationship among primary study variables within the sad memory condition. Results are organized by school level: elementary, middle, and high school. Consistent with Cohen's (1988) guidelines, correlations are interpreted as small ($r \approx .10$), moderate ($r \approx .30$), or large ($r \geq .50$). Tables 6, 7, and 8 present the full correlation matrices.

3.2.2.1. At the Elementary School Level

Regarding the correlations on *gender-role associations*, significant relations emerged between gender-role traits in mother-child dyads. Children's masculinity and femininity were strongly positively correlated (r =.54, p <.001), indicating that these traits co-occur rather than exist on opposite ends of a spectrum. Child masculinity was positively associated with maternal femininity (r = .15, p = .03). As maternal masculinity increased, so did child femininity. Notably, maternal masculinity and femininity were themselves strongly correlated (r = .56, p < .001); the higher the mother's masculinity, the higher their femininity as well.

Regarding the correlations between *demographic variables*, geographical region was positively associated with child masculinity (r = .15, p = .04) and maternal masculinity (r = .18, p = .01), suggesting that families in urban areas displayed higher masculine traits. Maternal education (r = .37, p < .001) and perceived SES (r = .21, p = .004) were also positively associated with urban location. Mothers in urban areas had higher education levels and perceived higher socioeconomic status. Maternal perceived socioeconomic status was positively correlated to maternal masculinity (r = .21, p = .004) and maternal femininity (r = .23, p = .001). Maternal education was positively associated with maternal masculinity (r = .16, p = .03).

Regarding the correlations on *subjective perspectives* in memory narratives, child use of subjective perspectives was negatively associated with gender (r = -.19, p = .03), indicating that girls in elementary school used more subjective perspectives in their sad memory narratives. Child grade level was positively associated with subjective perspective use (r = .19, p = .03). As grade levels increased, so did the use of subjective perspectives. There were no significant correlations with the use of subjective perspectives for mothers. Regarding the correlations on reported *age of memory recall*, child age of memory was positively correlated to child age (r = .21, p = .003) and maternal perceived SES (r = .19, p = .008). It was also positively correlated to the use of subjective perspectives (r = .29, p < .001). Children who had a higher use of subjective perspectives reported older ages in their sad memories. There were no significant correlations with maternal age of reported memory.

3.2.2.2. At the Middle School Level

Regarding the correlations on *gender-role associations*, children's masculinity and femininity remained significantly positively correlated (r = .52, p < .001). Maternal masculinity was positively associated with both children's masculinity (r = .16, p = .002) and femininity (r = .11, p = .04). Maternal masculinity and femininity were also positively correlated (r = .44, p < .001). Regarding the correlations between *demographic variables*, maternal education were negatively correlated with mothers femininity (r = -.13, p = .02). Maternal perceived socioeconomic status was negatively correlated with child age (r = -.11, p = .04) and grade level (r = -.12, p = .02), but positively correlated with maternal education (r = .23, p < .001).

Geographical region was again positively associated with maternal education (r = .24, p < .001). No significant associations emerged between child age and gender traits.Regarding the correlations on *subjective perspectives* use in memory narratives, child use of subjective perspectives was positively correlated with child age (r = .15, p = .02), grade level (r = .17, p = .008), and maternal age of memory (r = .19, p = .003). Maternal use of subjective perspectives was positively correlated with maternal education (r = .14, p = .03) but negatively correlated with maternal age of memory (r = -.14, p = .03).Regarding the correlations on reported *age of memory recall*, child age of memory was positively associated with child age (r = .24, p < .001) and grade level (r = .24, p < .001). No significant correlations were found with maternal age of memory in this group.

3.2.2.3. At the High School Level

Regarding the correlations on *gender-role associations*, children's masculinity and femininity were significantly correlated (r = .52, p < .001). Maternal femininity was positively associated with both child masculinity (r = .16, p = .02) and femininity (r = .23, p = .001). Maternal masculinity, in contrast, was positively related only to child masculinity (r = .23, p < .001), but not femininity. Maternal masculinity and femininity remained significantly associated (r = .37, p < .001). Regarding the correlations between *demographic variables*, maternal perceived socioeconomic status was positively associated with maternal masculinity (r = .18, p = .01) and maternal education (r = .18, p = .01). Geographical region was positively associated with both child age (r = .16, p = .02) and maternal education (r = .32, p < .001), indicating again that urban residence corresponded with higher education and older children.Regarding the correlations on *subjective perspectives* use in memory narratives, children's use of subjective perspectives was positively associated with child femininity (r = .18, p < .05) and geographical region (r = .18, p = .05). Maternal use of subjective perspectives was positively associated with maternal education (r = .31, p < .001). Regarding the correlations on reported *age of memory recall*, child age of memory recall was positively associated with both child age (r = .24, p < .001) and grade level (r = .21, p = .002). Maternal reported age of memory recall was positively associated with maternal perceived socioeconomic status (r = .19, p = .005).

Table 4. Correlational Statistics of Study Variables for Happy Memories in Elementary School

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Child Masculinity	1													
2. Child Femininity	.54**	1												
3. Mother Masculinity	.13	.12	1											
4. Mother Femininity	.15*	.09	.56**	1										
5. Child Gender	.10	-.08	.12	.11	1									
6. Child Age	.06	.05	.12	.07	.00	1								
7. Child Subjective Perspectives	.05	.02	.04	.12	-.23*	.13	1							
8. Mother Subjective Perspectives	.12	.02	.20**	.16*	.01	.07	.10	1						
9. Child Age of Memory	-.05	-.02	.03	.00	-.01	.25**	-.05	.04	1					
10. Mother Age of Memory	-.03	-.04	-.17*	-.23**	-.10	.11	.12	-.03	.16*	1				
11. School Level	.04	.01	.05	.05	-.09	.80**	.16*	-.01	.10	.01	1			
12. Mother Education Level	.13	.04	.16	.08	.06	.11	.11	.28**	.05	.06	.05	1		
13. Mother Perceived SES	.11	.03	.21**	.23**	.01	.03	.07	.11	.01	.00	-.08	.39**	1	
14. Geographical Region	.15*	.10	.18*	.11	.04	.05	.17*	.18*	.08	-.00	.00	.37**	.21**	1

Note. *p<.05; ** p<.001; Girls were coded as "0"; boys were coded as "1".

Table 5. Correlational Statistics of Study Variables for Happy Memories in Middle School

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Child Masculinity	1													
2. Child Femininity	.52**	1												
3. Mother Masculinity	.16**	.11*	1											
4. Mother Femininity	.02	.06	.44**	1										
5. Child Gender	.07	-.07	.07	.06	1									
6. Child Age	.02	-.06	-.02	-.04	.10	1								
7. Child Subjective Perspectives	.16**	.12	.00	.05	-.15*	.13*	1							
8. Mother Subjective Perspectives	.10*	.09	-.02	.05	.03	.05	.14**	1						
9. Child Age of Memory	.02	.01	.02	-.01	-.10	.19**	.02	-.00	1					
10. Mother Age of Memory	-.04	-.00	.00	.03	.00	.02	.02	-.00	.03	1				
11. School Level	-.01	-.07	-.01	-.03	.03	.94**	.13*	.02	.21**	-.00	1			
12. Mother Education Level	.07	.01	-.06	-.13*	.06	.03	.04	.12*	.03	-.00	-.04	1		
13. Mother Perceived SES	.01	-.08	.05	-.01	-.04	-.11*	.01*	.03	.05	.00	-.12*	.23**	1	
14. Geographical Region	.05	.02	-.09	-.06	.15**	.04	.00	-.06	.02	.04	-.02	.24**	.06	1

Note. *p<.05; ** p<.001; Girls were coded as "0"; boys were coded as "1".

Table 6. Correlational Statistics of Study Variables for Happy Memories in High School

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Child Masculinity	1													
2. Child Femininity	.52**	1												
3. Mother Masculinity	.23**	.04	1											
4. Mother Femininity	.16**	.23**	.37**	1										
5. Child Gender	.13	-.04	.06	.11	1									
6. Child Age	.10	.07	-.07	-.05	-.03	1								
7. Child Subjective Perspectives	.15*	.20**	-.02	.10	-.11	-.04	1							
8. Mother Subjective Perspectives	.18*	.03	.08	.12	.10	.18*	.07	1						
9. Child Age of Memory	.07	.13	.03	.02	-.09	.23**	.03	.01	1					
10. Mother Age of Memory	.09	.05	.10	-.03	.01	-.11	.03	.03	.09	1				
11. School Level	.13	.11	-.03	-.03	-.04	.92**	-.09	.16*	.21**	-.09	1			
12. Mother Education Level	.07	-.01	-.01	.01	.12	.09	.16*	.26**	.09	.17*	.08	1		
13. Mother Perceived SES	.04	-.09	.18*	.10	.00	.08	.02	.07	-.01	.06	.11	.18*	1	
14. Geographical Region	-.09	.01	-.03	.05	.08	.16*	.11	.12	.13	-.01	.13	.32**	.01	1

Note. *p<.05; ** p<.001; Girls were coded as "0"; boys were coded as "1".

Table 7. Correlational Statistics of Study Variables for Sad Memories in Elementary School

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Child Masculinity	1													
2. Child Femininity	.54**	1												
3. Mother Masculinity	.13	.12	1											
4. Mother Femininity	.15*	.09	.56**	1										
5. Child Gender	.10	-.08	.12	.11	1									
6. Child Age	.06	.05	.12	.07	.00	1								
7. Child Subjective Perspectives	.09	-.06	-.11	-.09	-.19*	.19*	1							
8. Mother Subjective Perspectives	.04	.06	.05	.11	-.12	.12	-.00	1						
9. Child Age of Memory	-.04	-.06	.07	.01	.02	.21**	.29**	-.09	1					
10. Mother Age of Memory	-.08	.00	-.01	-.02	-.09	.04	.08	-.12	.04	1				
11. School Level	.04	.01	.05	.05	-.09	.80**	.19*	.03	.05	-.02	1			
12. Mother Education Level	.13	.04	.16*	.08	.06	.11	.03	.17	.07	.02	.05	1		
13. Mother Perceived SES	.11	.03	.21**	.23**	.01	.03	.02	.04	.19**	.07	-.08	.38**	1	
14. Geographical Region	.15*	.10	.18*	.11	.04	.05	.12	.13	.04	.-04	.00	.37**	.21**	1

Note. *p<.05; ** p<.001; Girls were coded as "0"; boys were coded as "1".

Table 8. Correlational Statistics of Study Variables for Sad Memories in Middle School

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Child Masculinity	1													
2. Child Femininity	.52**	1												
3. Mother Masculinity	.16**	.11*	1											
4. Mother Femininity	.02	.06	.44**	1										
5. Child Gender	.07	-.07	.08	.06	1									
6. Child Age	.02	-.06	-.02	-.04	.10	1								
7. Child Subjective Perspectives	.01	.06	-.09	-.02	-.12	.15*	1							
8. Mother Subjective Perspectives	.04	.06	-.05	.03	.05	-.03	.00	1						
9. Child Age of Memory	.04	-.03	.05	.06	-.00	.24**	.05	.05	1					
10. Mother Age of Memory	-.01	-.03	.05	-.02	-.05	.05	.19**	-.14*	.03	1				
11. School Level	-.01	-.07	-.01	-.03	.03	.94**	.17*	-.06	.24**	.05	1			
12. Mother Education Level	.07	.01	-.06	-.13*	.06	.02	-.05	.14*	.05	-.01	-.04	1		
13. Mother Perceived SES	.01	-.08	.05	-.01	-.04	-.11*	-.03	.09	.01	-.06	-.12*	.23*	1	
14. Geographical Region	.05	.02	-.09	-.06	.15*	.04	.07	.11	.10	.01	-.02	.24**	.06	1

Note. *p<.05; ** p<.001; Girls were coded as "0"; boys were coded as "1".

Table 9. Correlational Statistics of Study Variables for Sad Memories in High School

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Child Masculinity	1													
2. Child Femininity	.52**	1												
3. Mother Masculinity	.23**	.04	1											
4. Mother Femininity	.16*	.23**	.37**	1										
5. Child Gender	.13	-.04	.06	.11	1									
6. Child Age	.10	.07	-.07	-.05	-.03	1								
7. Child Subjective Perspectives	.15	.18*	.02	.16	.04	.11	1							
8. Mother Subjective Perspectives	.12	.06	.04	.02	.00	.07	.06	1						
9. Child Age of Memory	.06	.02	.01	.07	-.10	.24**	.17	-.15	1					
10. Mother Age of Memory	.03	.05	.00	.07	.01	-.03	.01	-.05	-.04	1				
11. School Level	.13	.11	-.03	-.03	-.04	.92**	.10	.09	.21**	-.02	1			
12. Mother Education Level	.07	-.01	-.01	.01	.12	.09	.15	.31**	-.03	.06	.08	1		
13. Mother Perceived SES	.04	-.09	.18*	.10	.00	.08	-.03	.01	.09	.19**	.11	.18*	1	
14. Geographical Region	-.09	.01	-.03	.05	.08	.16*	.18*	.05	-.03	-.00	.13	.32**	.01	1

Note. *p<.05; ** p<.001; Girls were coded as "0"; boys were coded as "1".

3.3. The Impact of Maternal Gender Role Traits on Child Gender-Role Traits Based on School Level

Two separate multiple regression models tested whether maternal masculinity and femininity predicted children's gender roles during memory narration. Masculinity and femininity were entered as predictors, respectively, and were entered in the first step. The second step included the child's school level and gender. The third step included the interaction terms: maternal masculinity x school level, maternal femininity x school level, maternal masculinity x child gender, and maternal femininity x child gender. This analysis incorporated both the happy and sad samples for a total sample of 2,414 participants.

3.3.1 For Child Masculinity

At the *elementary school level*, model 1 was found to be nonsignificant ($F(2, 342) = 1.20$, $p = .303$). The second model ($F(4, 340) = 2.73$, $p = .029$) as well as the final model were significant ($F(8, 336) = 2.70$, $p = .007$). The final step of the model showed significance in maternal masculinity ($\beta = 1.02$, $p = .017$) and grade level ($\beta = .93$, $p = .05$). The interaction between maternal masculinity and grade ($\beta = -.23$, $p = .055$) and maternal masculinity and gender ($\beta = -.27$, $p = .025$) significantly predicted child masculinity. Follow-up simple slope analyses indicated that higher maternal masculinity predicted higher masculine traits in girls than in boys ($t = 2.40$, $SE = .43$, $p = .02$) (see Figure 2).

At the *middle school level*, model 1 was significant *(*$F(2, 688) = 4.37$, $p = .013$). The second model was also significant ($F(4, 686) = 2.74$, $p = .028$). The final model also reached significance ($F(8, 682) = 2.21$, $p = .025$). At the final step, maternal masculinity was found to positively predict child masculinity ($\beta = .64$, $p = .008$) and the interaction between maternal masculinity and child grade had a negative impact on child masculinity ($\beta = -.09$, $p = .012$). Simple slop analyses did not reach significance.

At the *high school level*, model 1 ($F(2, 473) = 3.74$, $p = .024$), model 2 ($F(4, 471) = 6.95$, $p < .001$), and model 3 ($F(8, 467) = 4.73$, $p < .001$) all reached significance.

The impact of maternal masculinity on child masculinity lost significance in the final step. At the final step, child gender (β= 1.36, p < .001) had a significant impact, and the interaction between maternal femininity and child gender (β= -.19, p = .073) had a marginal impact on child masculinity. Further slope analyses found that there is no significance in the interaction between maternal femininity and gender on child masculinity.

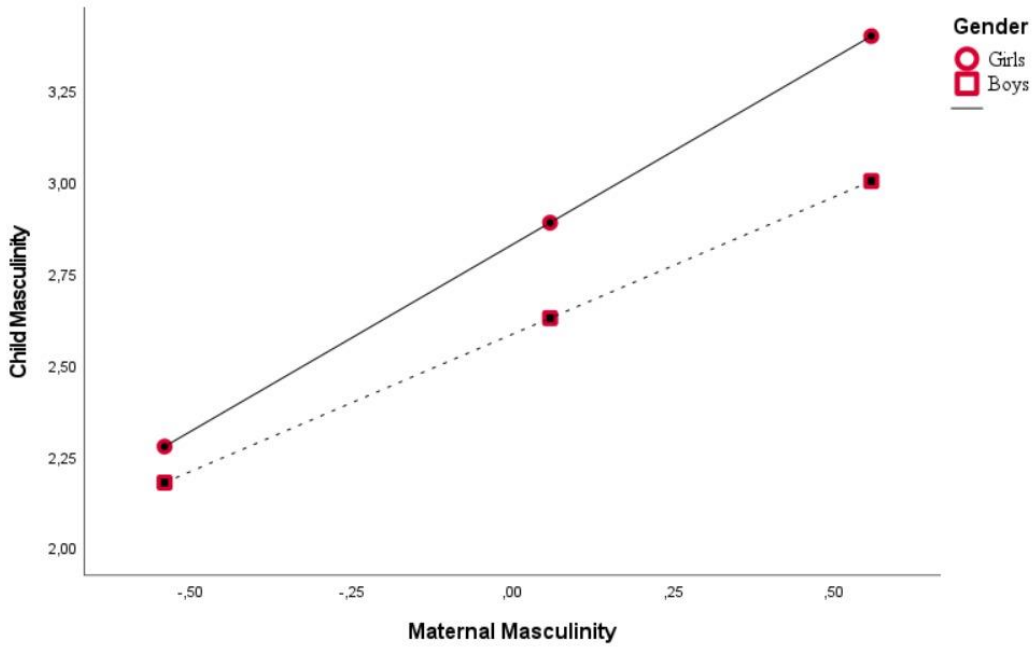

Figure 2. The Interplay between Maternal Masculinity and Child Masculinity Between Boys and Girls

Table 10. Regression Analyses for Mother-Child Gender-Role Interactions for Child Masculinity Across School Levels

		Elementary School			***Middle School***			***High School***		
Variables		***B(SE)***	***β***	***p***	***B(SE)***	***β***	***p***	***B(SE)***	***β***	***p***
		R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}
Model 1		.001	1.20	-	.010	4.37*	-	.011	3.74*	-
Intercept		-1.18(1.71)		.490	1.24(.86)		.15	1.29(2.49)		.61
Maternal (MM)	Masculinity	1.02(.43)	1.04	.02	.64(.24)	.70	.01	.84(.66)	.86	.20
Maternal (MF)	Femininity	-.05(.43)	-.05	.90	-.19(.24)	-.21	.42	-.53(.64)	-.53	.41

Table 10. (continued)

Model 2	R^2_{adj}	F	F_{change}	R^2_{adj}	F	F_{change}	R^2_{adj}	F	F_{change}
	.020	2.73*	4.24*	.010	2.74*	1.11	.048	6.95**	10.03**
Child Grade Level	.93(.48)	.82	.05	.16(.13)	.30	.24	.03(.25)	.05	.89
Child Gender	.69(.49)	.61	.16	.04(.33)	.04	.89	1.36(.40)	1.18	<.001
Model 3	R^2_{adj}	F	F_{change}	R^2_{adj}	F	F_{change}	R^2_{adj}	F	F_{change}
	.038	2.70*	2.62*	.014	2.21*	1.67	.059	4.73**	2.42*
MM* Grade	-.23(.12)	-1.15	.06	-.09(.04)	-.89	.01	-.07(.07)	-.76	.30
MM*Gender	-.27(.12)	-.85	.03	.02(.08)	.05	.85	-.10(.10)	-.31	.33
MF*Grade	.01(.12)	-1.15	.06	.04(.04)	.42	.27	.07(.06)	.77	.30
MF*Gender	.07(.12)	.26	.57	-.01(.08)	-.03	.92	-.19(.11)	-.72	.07

3.3.2. For Child Femininity

At the *elementary school level*, model 1 was found to be nonsignificant ($F(2, 342) = 1.67$, $p = .190$). The second model was also found to be nonsignificant ($F(4, 340) = 1.99$, $p = .095$). Model 3 on the other hand, reached significance ($F(8, 336) = 2.17$, $p = .029$. In the final step of the model, grade level ($\beta = 1.07$, $p = .036$) was significant, and the interaction between maternal masculinity and child gender had a negative impact on child femininity ($\beta = -.27$, $p = .02$). After simple slope analyses were conducted, the interaction term was still significant, but neither slope was individually found to be significant, indicating that the effect still differs by gender, but both effects might be small or marginal.

At the *middle school level* results were similar to the masculine condition. Model 1 was significant $F(2, 688) = 7.62$, $p < .001$). The second ($F(4, 686) = 8.02$, $p < .001$) and final model also reached significance ($F(8, 682) = 4.56$, $p < .001$). Initially, maternal femininity had an impact on child femininity ($\beta = .13$, $p = .003$); however, it lost significance when the interaction terms were entered. At the final step, maternal masculinity had a positive impact on child femininity ($\beta = .51$, $p = .046$), and the interaction between maternal masculinity and child grade level had a negative impact on child femininity ($\beta = -.08$, $p = .042$)

The *high school level* presented similar results to the masculine condition, model 1 ($F(2, 473) = 3.10$, $p = .046$), model 2 ($F(4, 471) = 3.82$, $p = .005$), and model 3 ($F(8, 467) = 2.72$, $p = .006$) all reached significance. In model 1, femininity initially marginally predicted child femininity ($\beta = .09$, $p = .065$). However, this effect became nonsignificant when the interaction terms were added. At the final step, only the interaction between maternal masculinity and child gender ($\beta = -.20$, $p = .040$) had a negative impact on child femininity. Further follow-up simple slope analyses were conducted, although neither simple slope was individually significant, the significant interaction indicates that the effect of maternal masculinity on child femininity differs between boys and girls. Therefore, higher maternal masculinity is associated with lower femininity in girls.

Table 11. Regression Analyses for Mother-Child Gender-Role Interactions for Child Femininity Across School Levels

	Elementary School			***Middle School***			***High School***		
Variables	***B(SE)***	***β***	***p***	***B(SE)***	***β***	***p***	***B(SE)***	***β***	***p***
	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}
Model 1	.004	1.67	-	.019	7.62**	-	.009	3.10*	-
Intercept	-1.65(1.78)		.36	1.96(.91)		.03	1.15(2.34)		.62
Maternal Masculinity (MM)	.62(.45)	.60	.17	.51(.26)	.52	.05	.26(.62)	.29	.67
Maternal Femininity (MF)	.50(.45)	.48	.27	-.12(.25)	-.12	.63	.06(.60)	.06	.93
Model 2	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}
	.011	1.99	2.30	.039	8.02**	8.28**	.023	3.82*	4.49*
Child Grade Level	1.07(.50)	.91	.03	.05(.14)	.10	.71	.09(.23)	.14	.69
Child Gender	.81(.51)	.69	.11	-.13(.34)	-.11	.70	.66(.38)	.62	.08
Model 3	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}
	.027	2.17	2.32	.040	4.56**	1.10	.028	2.72*	1.60
MM* Grade	-.12(.13)	-.58	.34	-.08(.04)	-.71	.04	-.02(.06)	-.18	.81
MM*Gender	-.27(.13)	-.80	.04	.02(.09)	.07	.80	-.20(.10)	-.67	.04
MF*Grade	-.13(.13)	-.65	.33	.04(.04)	.43	.26	.01(.06)	.08	.92
MF*Gender	.02(.13)	.06	.90	-.03(.09)	-.09	.77	-.02(.10)	-.07	.87

3.4. The Impact That Maternal Gender-Roles Have on Child Subjective Perspectives and Age of Memory Recall

Preliminary multiple-regression analyses confirmed that the control variables (child age, child gender, maternal subjective perspectives) were significant predictors of children's subjective perspectives use and age of memory recall. All continuous variables were mean-centered prior to computing interaction terms. Structural equation models were applied to test Hypothesis 2: maternal masculinity and femininity influence children's gender roles, which in turn predict children's subjective perspectives and age of memory recall.

3.4.1. Happy Memories

The initial moderation models yielded a poor fit for elementary, $\chi^2(41)$= 33.91, CFI =.18, RMSEA=.42, middle $\chi^2(41)$ = 4.39, CFI=.75, RMSEA=.10, and high school levels, $\chi^2(41)$ = 26.90, CFI=.16, RMSEA=.36. There were no significant mother-to-child paths that emerged. By breaking up the relationships, we were able to get a better picture of how mother and child gender roles relate to the use of subjective perspectives. Instead of putting a path between the mother and child, the new model was separated into two separate models, one with a direct path from mothers masculinity and femininity to the child's use of subjective perspectives and age of memory recall, and one from the child's masculinity and femininity to the child's use of subjective perspectives and age of memory recall.

3.4.1.1. At the Elementary School Level

The *maternal only model* produced a good fit, $\chi^2(33)$ = 44.94, p = .08, CFI = .96, RMSEA = .04. Only control paths, child age (β=.04, *SE*= .02, *p*=.014) and gender (β=-.45, *SE*= .22, *p*=.039) has an impact on the child's use of subjective perspectives. Similarly, the child's age (β=.09, *SE*=.02, $p < .001$) has an impact on the age of memory recall. Marginal significance was seen in maternal age of memory positively impacting child age of memory (β=.03, *SE*=.02, *p*=.06) and in the interaction between child masculinity and age in impacting child age of memory (β=-.02, *SE*=.01, *p*=.08). Other interaction terms were nonsignificant (see Figure 3).

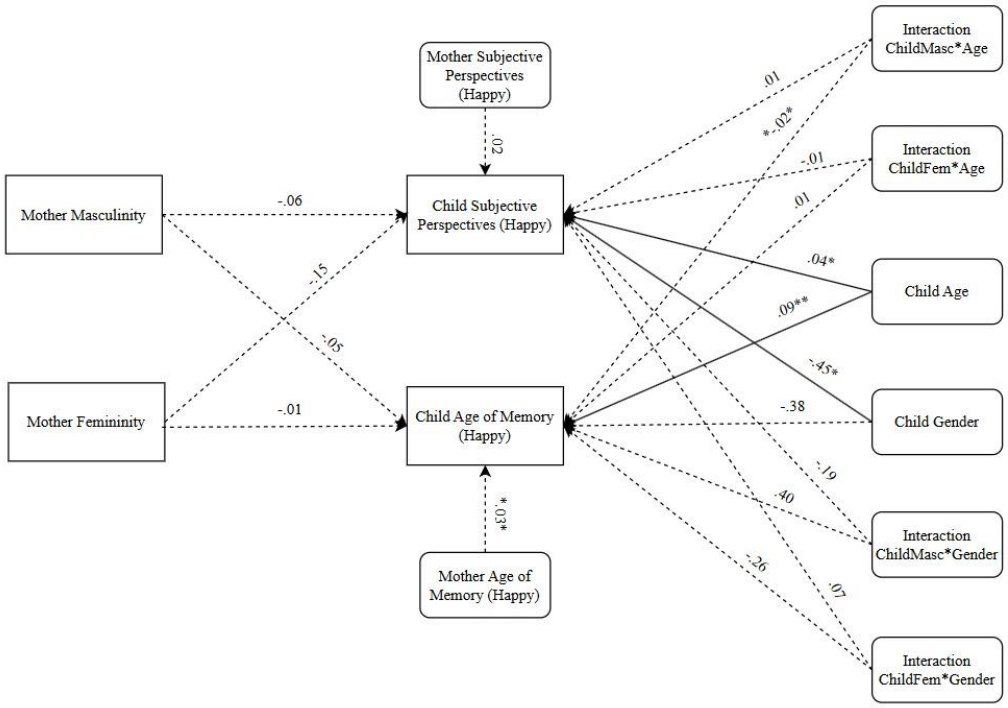

Figure 3. Path Model for Maternal Gender-Roles and its Impact on Subjective Perspectives Use and Age of Memory in Happy Memories at the Elementary School Level

Within the *child only model*, the model produced good fit, $\chi^2(33) = 54.34$, p =.01, CFI = .99, RMSEA = .06. Results show that the child masculinity has a positive impact on the child's use of subjective perspectives in happy memories (β=3.10, *SE*= 1.34, *p*=.02). The child's age (β=.04, *SE*= .02, *p*=.003) and gender (β=-.48, *SE*= .22, *p*=.027) has a positive impact on the child's use of subjective perspectives. As the child's age increases, the use of subjective perspectives increases, and girls use more subjective perspectives than boys. Similarly, the child's age (β=.08, *SE*=.02, *p*<.001) also has a positive impact on the child's age of memory recall. The higher the age, the higher the age of memory recall. There was marginal significance in maternal age of memory and child age of memory (β=.03, *SE*=.02, *p*=.07). The interaction between child masculinity and age was significant in predicting child use of subjective perspectives (β=.09, *SE*=.04, *p*=.018). This indicates that the strength of the relationship between child masculinity and the use of subjective perspectives differs depending on age. There was also marginal significance between child femininity and age and child use of subjective perspectives (β=-.06, *SE*=.03, *p*=.06) (see Figure 4).

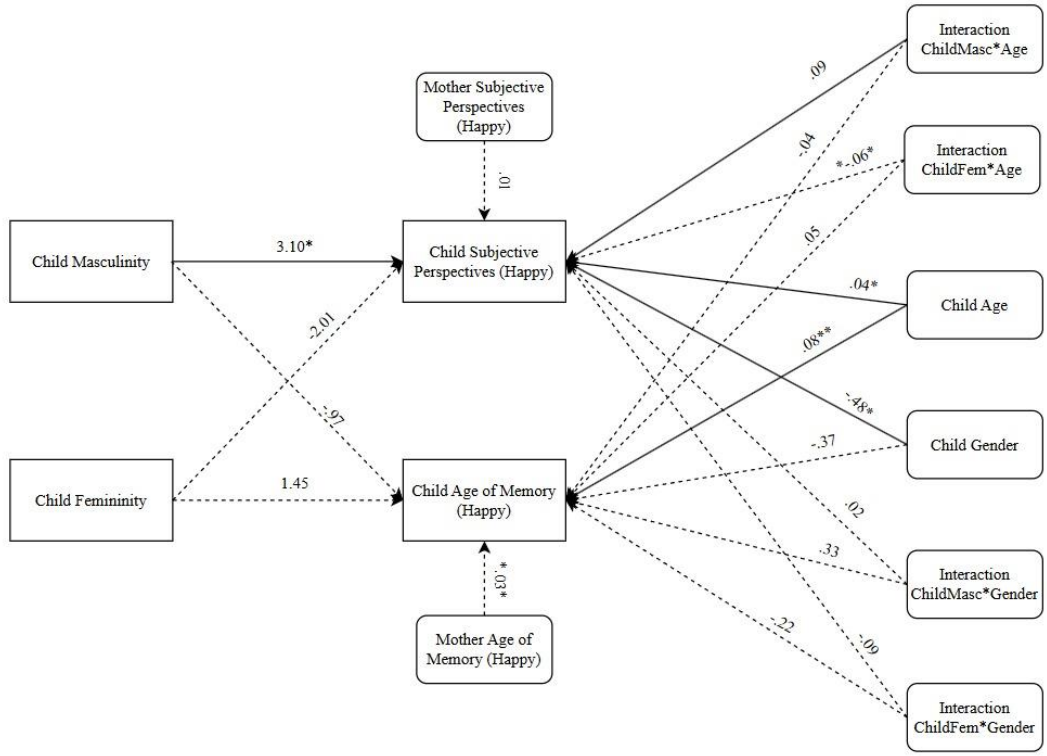

Figure 4. Path Model for Child Gender-Roles and its Impact on Subjective Perspectives Use and Age of Memory in Happy Memories at the Elementary School Level

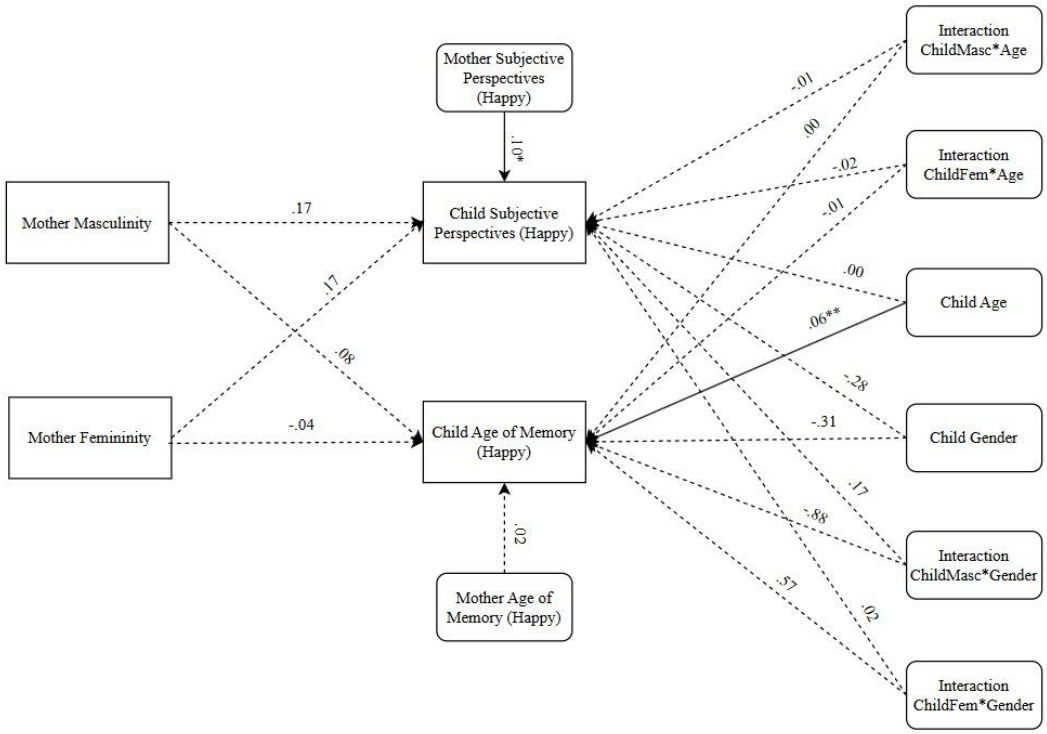

Figure 5. Path Model for Maternal Gender-Roles and its Impact on Subjective Perspectives Use and Age of Memory in Happy Memories at the Middle School Level

3.4.1.2. At the Middle School Level

Regarding the *maternal only model*, separating maternal predictors for this model produced a good fit, $\chi^2(33) = 41.85$, p =.139, CFI = .98, RMSEA = .03. Maternal use of subjective perspectives was a positive predictor of child use of subjective perspectives (β=.10, *SE*=.04, p = .013). From the control paths, only child age (β=.06, *SE*=.01, p < .001) was found to have a positive impact on child age of memory. Interaction terms were nonsignificant (see Figure 5).

Within the *child-only model*, the model produced a good fit, $\chi^2(33) = 44.23$, p = .092, CFI = .98, RMSEA = .03. Results show that child masculinity has a marginal positive impact on the child's use of subjective perspectives in happy memories (β= .40, *SE*= .23, p = .076). Maternal use of subjective perspectives once again has a positive impact on the child's use of subjective perspectives (β=.11, *SE*=.04, p=.009). Finally, the child's age (β=.06, *SE*=.01, p < .001) has a positive impact on the child's age of memory (see Figure 6).

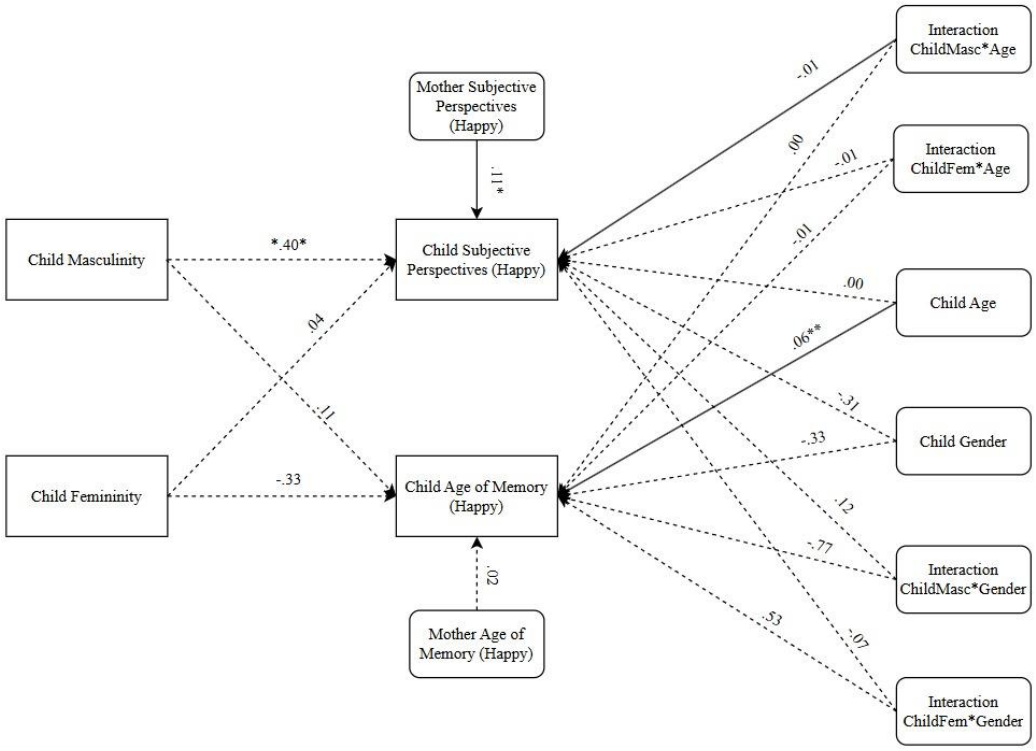

Figure 6. Path Model for Child Gender-Roles and its Impact on Subjective Perspectives Use and Age of Memory in Happy Memories at the Middle School Level

3.4.1.3. At the High School Level

Regarding the *maternal model*, Separating maternal predictors for this model produced satisfactory fit, $\chi^2(33)$ = 70.26, p = .000, CFI = .83, RMSEA = .08. Control values such as child age (β= .06, *SE*= .02, p < .001) and gender (β=-1.29, *SE*= .41, p = .003) had a positive impact on the age of memory; and only child gender (β= - .72, *SE*= .33, p = .03) had a positive impact on the use of subjective perspectives. The interaction between child masculinity and age was significant in predicting child use of subjective perspectives (β=.02, *SE*= .01, p = .004) and a marginal significance for the child's age of memory (β=.02, *SE*= .01, p = .06). This indicates that the strength of the relationship between child masculinity and the use of subjective perspectives differ depending on age (see Figure 7).

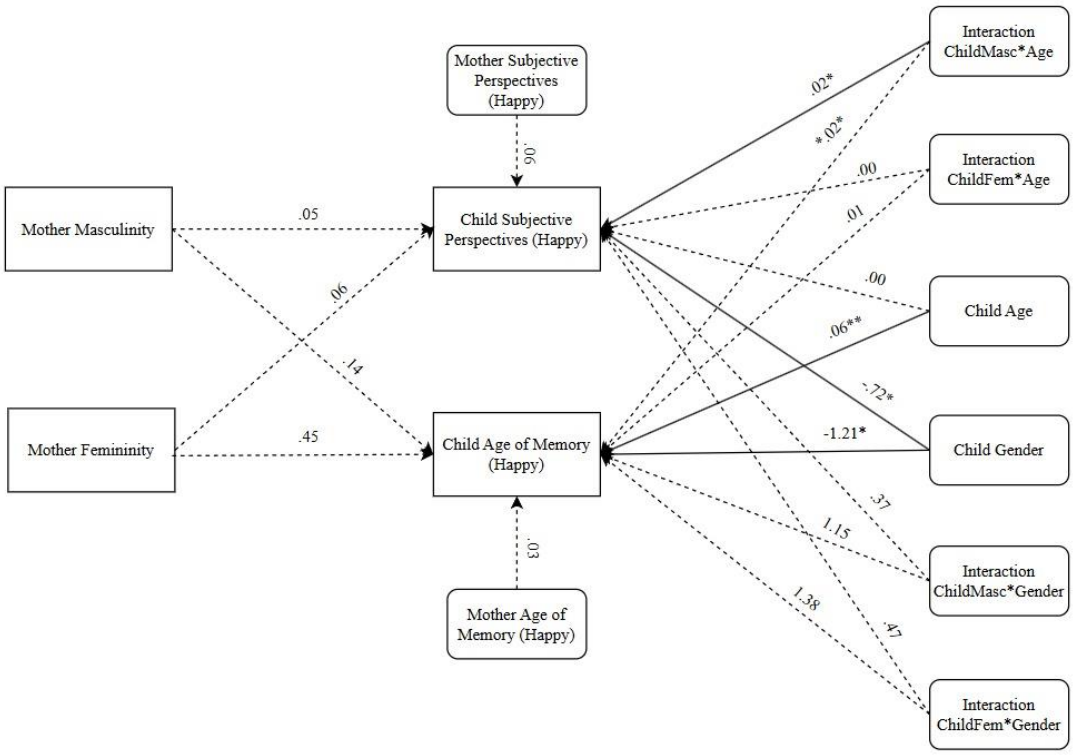

Figure 7. Path Model for Maternal Gender-Roles and its Impact on Subjective Perspectives Use and Age of Memory in Happy Memories at the High School Level

Within the *child only model*, the model produced good fit, $\chi^2(33)$ = 60.93, p = .002, CFI = .98, RMSEA = .07. Control values such as child age (β= .05, *SE*= .02, p = .002) and gender (β=-1.08, *SE*= .40, p = .008) had a positive impact on the age of

memory. Only child gender (β= - .76, *SE*= .33, p = .02) had a positive impact on the use of subjective perspectives. Child femininity had a marginal impact on child age of memory (β= 3.08, *SE*= 1.74, p = .08). Interaction terms were nonsignificant (see Figure 8).

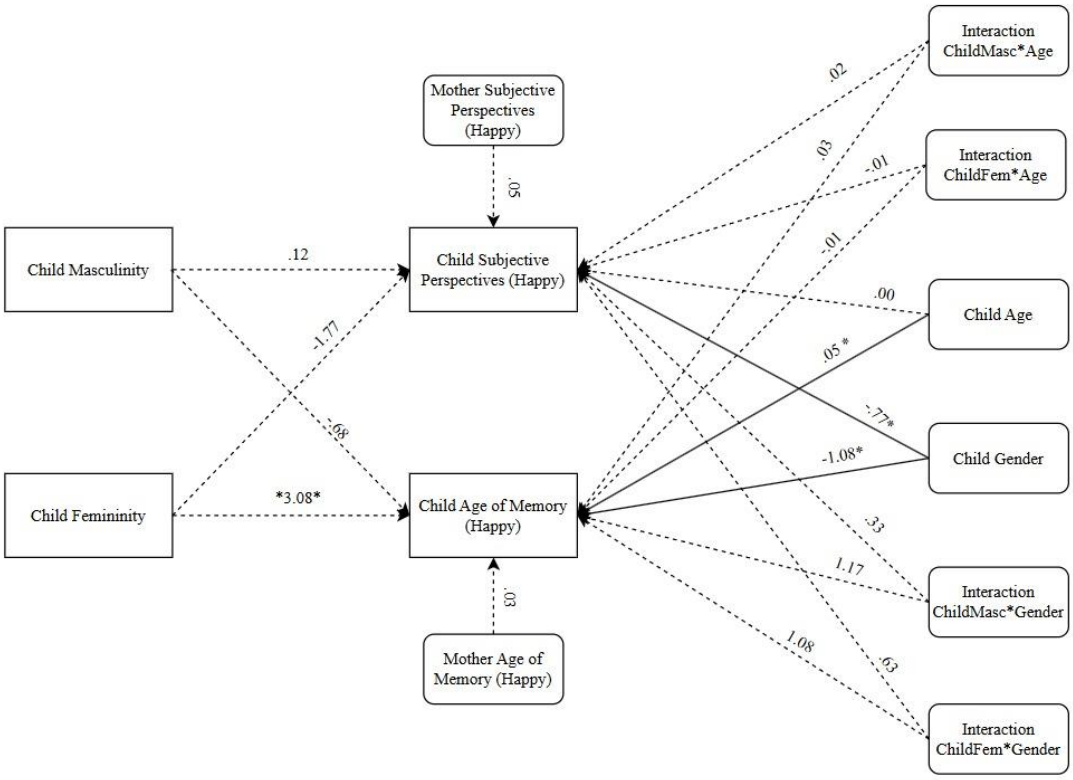

Figure 8. Path Model for Child Gender-Roles and its Impact on Subjective Perspectives Use and Age of Memory in Happy Memories at the High School Level

3.4.2. Sad Memories

The initial specification showed inadequate fit for elementary, $\chi^2(54)$=29.46, CFI=.17, RMSEA=.37, middle, $\chi^2(54)$=3.92, CFI=.75, RMSEA=.09, and high school levels, $\chi^2(54)$=25.00, CFI=.16, RMSEA=.31, necessitating model trimming identical to the happy-memory analyses.

3.4.2.1. At the Elementary School Level

Regarding the separated *maternal model*, allowing maternal masculinity and femininity to predict child outcomes directly improves fit, $\chi^2(33)$ = 69.11, p = .000,

CFI= .90, *RMSEA* = .07. Child age marginally positively predicted subjective perspectives use in children (β=.03, *SE*= .02, *p* = .074) and positively AMR (β=.06, *SE*= .02, *p* = .009). Meaning that as the child's age increases, the use of subjective perspectives and the age of memory recall also showed an increase. Child gender also impacted the use of subjective perspectives in sad memories (β=-.92, *SE*=.26, *p*<.001). Girls reported more subjective perspectives use than boys (see Figure 9).

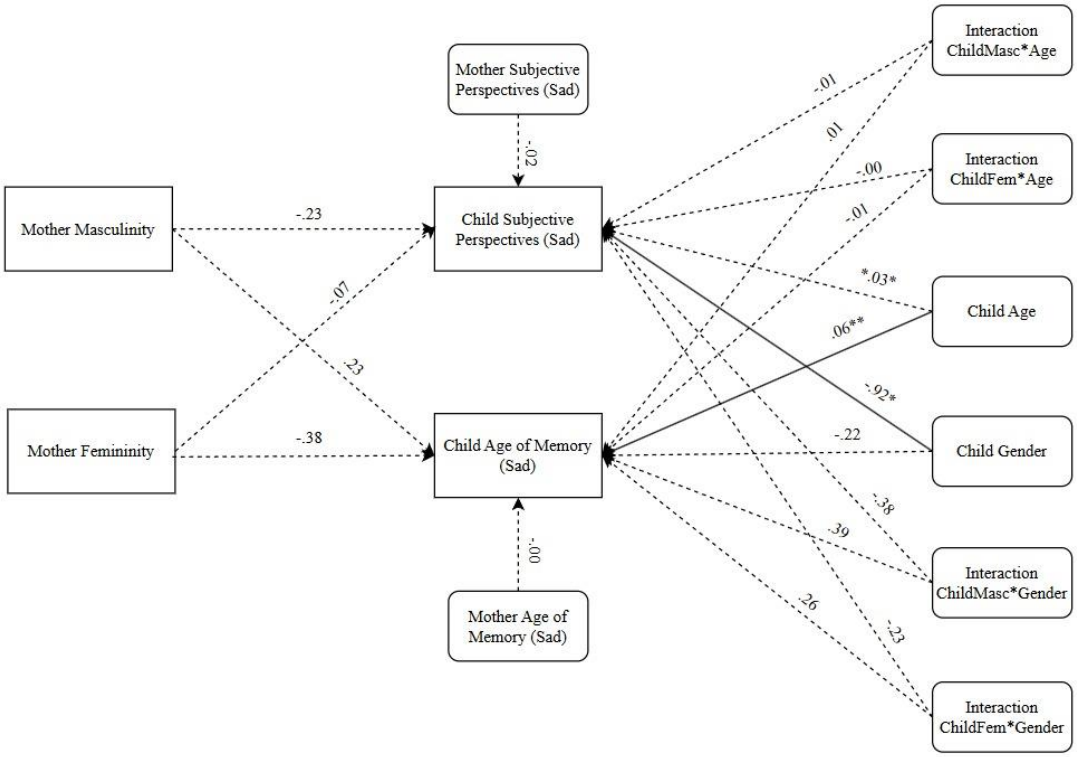

Figure 9. Path Model for Maternal Gender-Roles and its Impact on Subjective Perspectives Use and Age of Memory in Sad Memories at the Elementary School Level

Regarding the *child only model*, allowing child masculinity and femininity to predict their outcomes produced acceptable fit, $\chi^2(33) = 72.64$, *p*< .001, CFI = .98, RMSEA = .08. Control paths replicated earlier effects. The child's age has a positive impact on the use of subjective perspectives (β=.04, *SE*=.02, *p*=.04) and memory recall(β=.06, *SE*=.02, *p*=.008). As age increased, so did the use of subjective perspectives and the age of memory. When looking at gender, we see that girls have a higher use of subjective perspectives (β=-.92, *SE*= .26, *p* < .001). No interaction terms reached significance (see Figure 10).

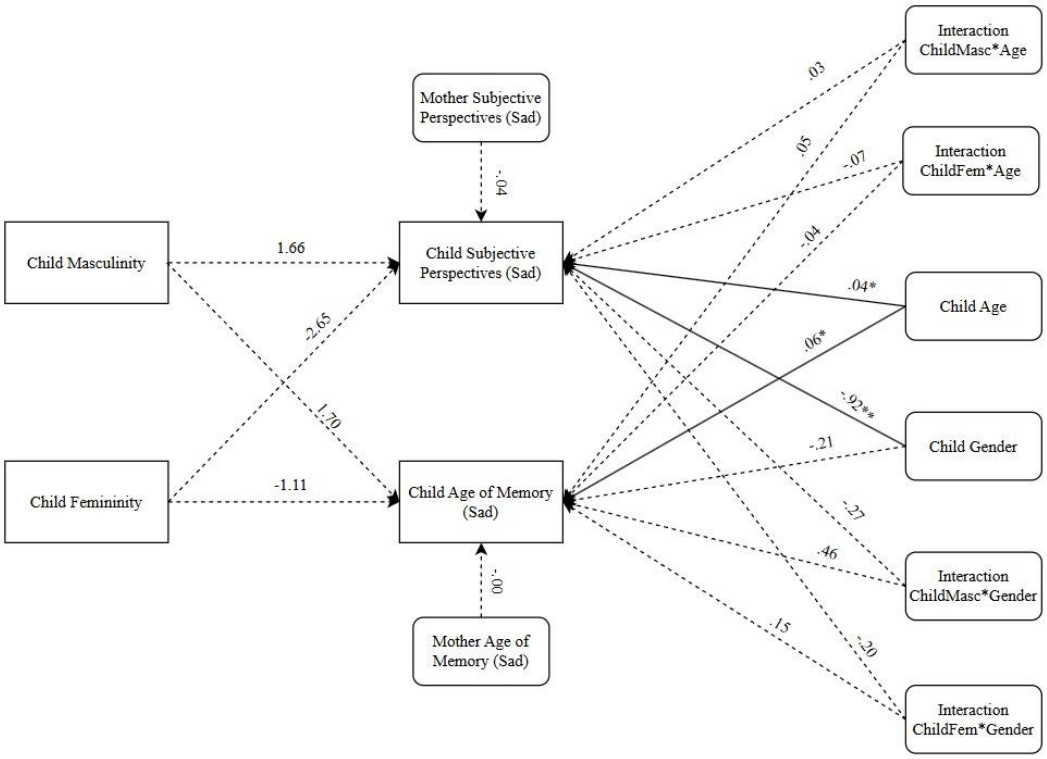

Figure 10. Path Model for Child Gender-Roles and its Impact on Subjective Perspectives Use and Age of Memory in Sad Memories at the Elementary School Level

3.4.2.2. At the Middle School Level

Regarding the *maternal model*, the model produced excellent fit, $\chi^2(33) = 26.51$, p = .781, CFI= 1.00, RMSEA = .00. This model fit indices suggests excellent fit; however it should be interpreted with caution as it may not provide meaningful evidence of model adequacy (Kline, 2016; Kenny et al., 2015). The mother's femininity (β=.68, *SE*=.29, *p*=.02) had a positive impact on the child's age of memory. The higher the feminine qualities the mother presented with, the greater the age of memory reported in children. Child age positively predicted age of memory (β=.05, *SE*=.01, $p < .001$). Meaning that as the child's age increases, the age of memory recall also shows an increase. Child gender had an impact on the child's use of subjective perspectives in sad memories (β=-1.21, *SE*=.27, *p*<.001) and a marginal impact on the age of memory (β=-.50, *SE*=.28, $p = .08$). Girls reported more subjective perspectives use than boys. Maternal use of subjective perspectives was also positively associated with child use of subjective perspectives (β=.15, *SE*=.03, $p < .001$) (see Figure 11).

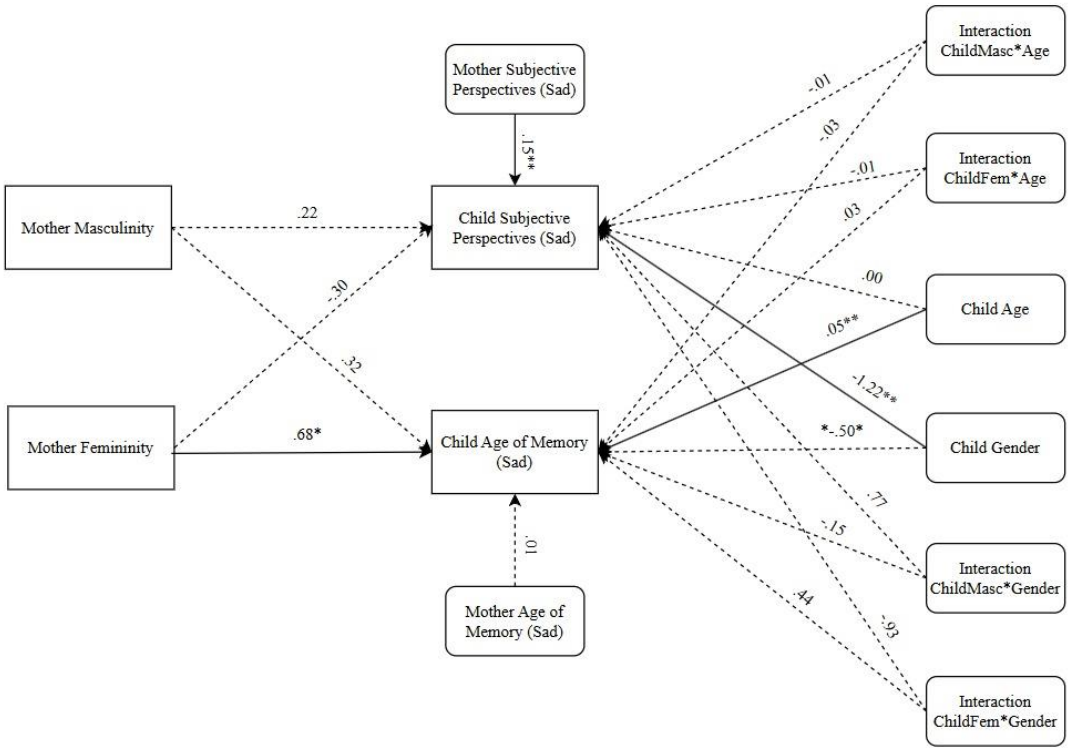

Figure 11. Path Model for Maternal Gender-Roles and its Impact on Subjective Perspectives Use and Age of Memory in Sad Memories at the Middle School Level

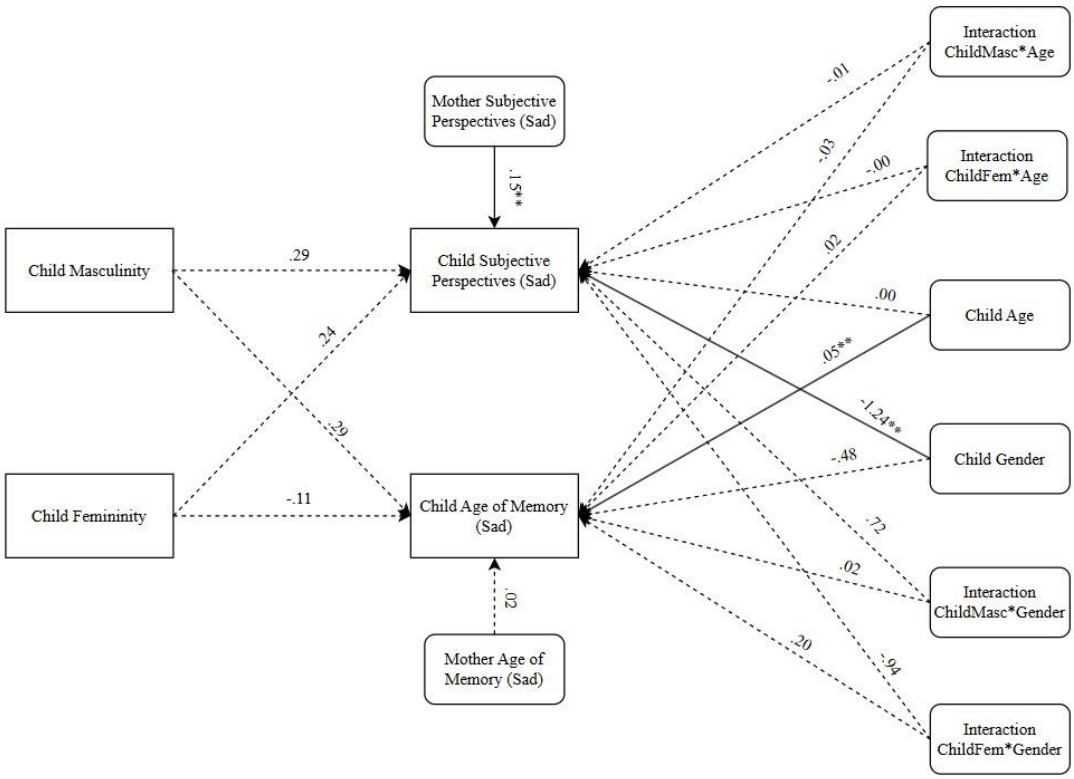

Figure 12. Path Model for Child Gender-Roles and its Impact on Subjective Perspectives Use and Age of Memory in Sad Memories at the Middle School Level

In regards to the *child only model*, this model also produced an excellent fit, $\chi^2(33)$ = 25.90, p = .806, CFI = 1.00, RMSEA = .00; once again, these results should be interpreted with caution as it may not provide meaningful evidence of model adequacy. In this model, maternal use of subjective perspectives positively predicted child use of subjective perspectives (β=.15, *SE*=.03, p < .001). Control paths replicated earlier effects. The child's age has a positive impact on the age of memory (β=.05, *SE*=.01, p < .001). As age increased, so did the age of memory. When looking at gender, we see that girls have a higher use of subjective perspectives (β=-.92, *SE*= .26, p < .001). No interaction terms reached significance (see Figure 12).

3.4.2.3. At the High School Level

In regards to the *maternal model*, the model produced a satisfactory fit, $\chi^2(33)$ = 62.89, p = .001, CFI =.89, RMSEA = .06. The maternal femininity (β= -1.45, *SE*= .58, p =.01) had a negative impact on the child's age use of subjective perspectives. The lower the feminine qualities the mother presented with, the greater the use of subjective perspectives in children. Maternal use of subjective perspectives had a positive impact on the child's use of subjective perspectives (β=.32, *SE*=.10, *p*=.001).

From the control paths, child age positively predicted age of memory (β=.03, *SE*=.02, *p*=.029). Meaning that as the child's age increases, the age of memory recall also shows an increase.

The interaction between child masculinity and age was significant in predicting both child use of subjective perspectives (β=.04, *SE*=.02, *p*=.008) and age of memory (β=.03, *SE*=.01, *p*=.003). This indicates that the strength of the relationship between child masculinity and the use of subjective perspectives differs depending on age. The interaction between gender and child masculinity was significant (β=-2.51, *SE*=1.29, *p*=.05) in predicting child use of subjective perspectives. Child masculinity (β=.2.50, *SE*= 1.38, p = .07) was marginally significant in predicting child use of subjective perspectives (see Figure 13).

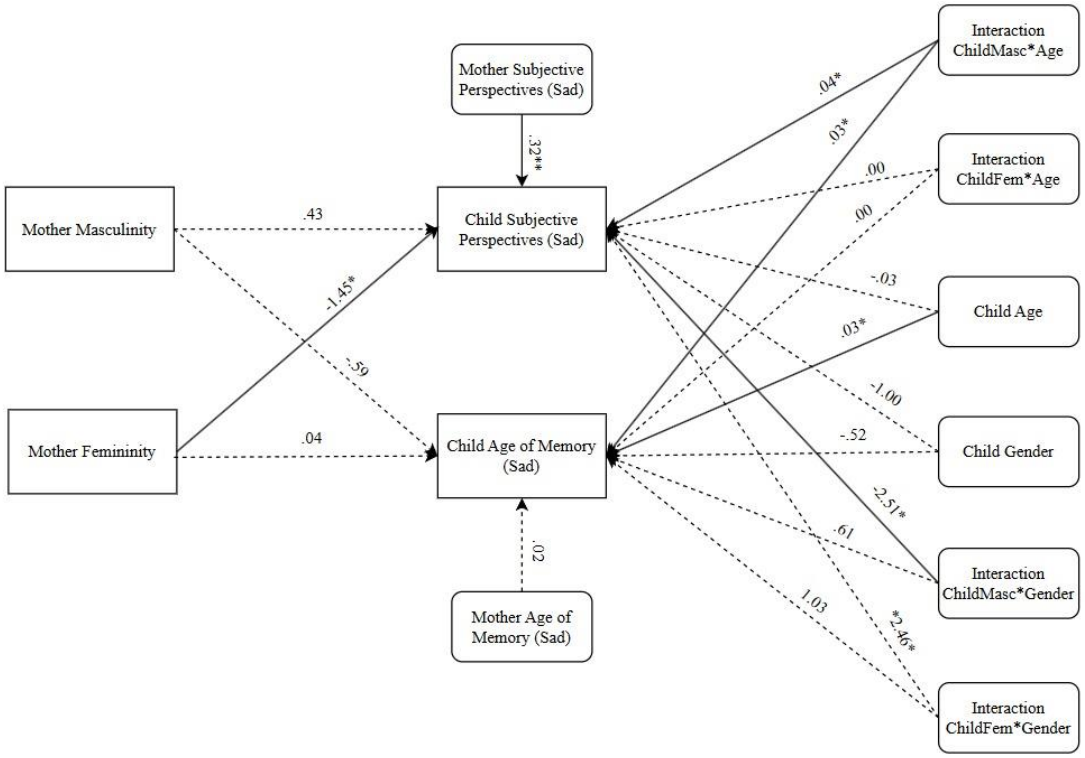

Figure 13. Path Model for Maternal Gender-Roles and its Impact on Subjective Perspectives Use and Age of Memory in Sad Memories at the High School Level

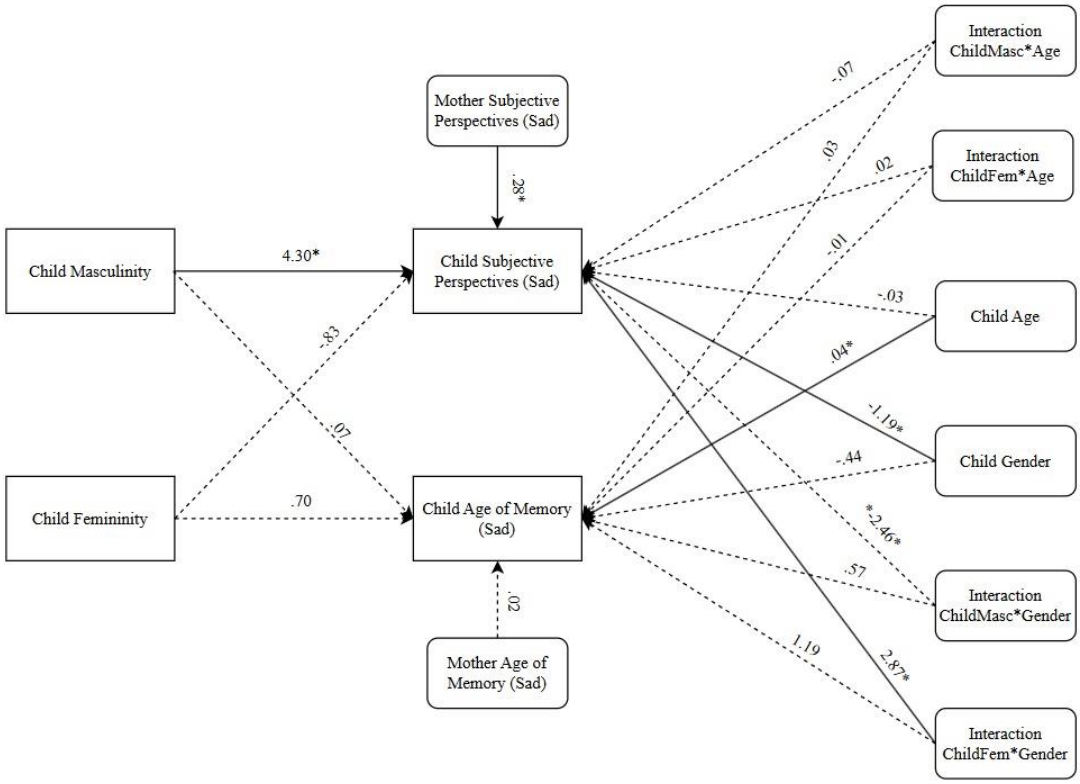

Figure 14. Path Model for Child Gender-Roles and its Impact on Subjective Perspectives Use and Age of Memory in Sad Memories at the High School Level

In regards to the *child only model*, this model also produced good fit, $\chi^2(33) = 81.99$, $p = .000$, CFI = .97, RMSEA = .08. Child masculinity positively predicted child use of subjective perspectives ($\beta = 4.30$, $SE = 1.95$, $p = .027$). Maternal use of subjective perspectives positively predicted child use of subjective perspectives ($\beta = .28$, $SE = .10$, $p = .004$). Control paths replicated earlier effects. The child's age has a positive impact on the age of memory ($\beta = .04$, $SE = .02$, $p = .028$). As age increased, so did the age of memory. When looking at gender, we see that girls have a higher use of subjective perspectives ($\beta = -1.19$, $SE = .60$, $p = .047$). The interaction between gender and child masculinity was significant ($\beta = 2.87$, $SE = 1.39$, $p = .04$) in predicting child use of subjective perspectives. Child masculinity ($\beta = -2.46$, $SE = 1.30$, $p = .06$) was marginally significant in predicting child use of subjective perspectives (see Figure 14).

3.5. The Impact That Gender-Roles Have on The Use of Subjective Perspectives (Between Time 1 and Time 2)

To assess whether maternal and child gender roles at Time 1 predicted the use of subjective perspectives (SP) at Time 2, a structural equation model (SEM) was tested using AMOS. Separate models were conducted for happy and sad memory conditions based on elementary, middle, and high school levels.

3.5.1. Happy Memories

At the *elementary school level*, the model for happy memories demonstrated acceptable fit, $\chi^2(39) = 64.63$, p = .003, CFI = .95, RMSEA = .06. Maternal and child masculinity and femininity at Time 1 did not significantly predict either the mother's or child's use of subjective perspectives at Time 2. Only child femininity at Time 1 negatively predicted maternal use of subjective perspectives in Time 2 ($\beta = -1.07$, $SE = .53$, $p = .04$). A few control paths emerged as significant. Child age was positively associated with child use of subjective perspectives ($\beta = .03$, $SE = .02$, $p = .03$), suggesting older children engaged in more subjective perspective use during happy memory recall. Mothers' use of subjective perspectives at Time 1 predicted

both their own subjective perspectives use at Time 2 (β = .63, *SE* = .06, p < .001). There was marginal significance between the child's Time 1 use of subjective perspectives and Time 2 use of subjective perspectives (β = .13, *SE* = .07, p = .085) and between child gender and child use of subjective perspectives (β = -.38, *SE* = .22, p = .077). No interaction terms involving child gender or age were statistically significant (see Figure 15).

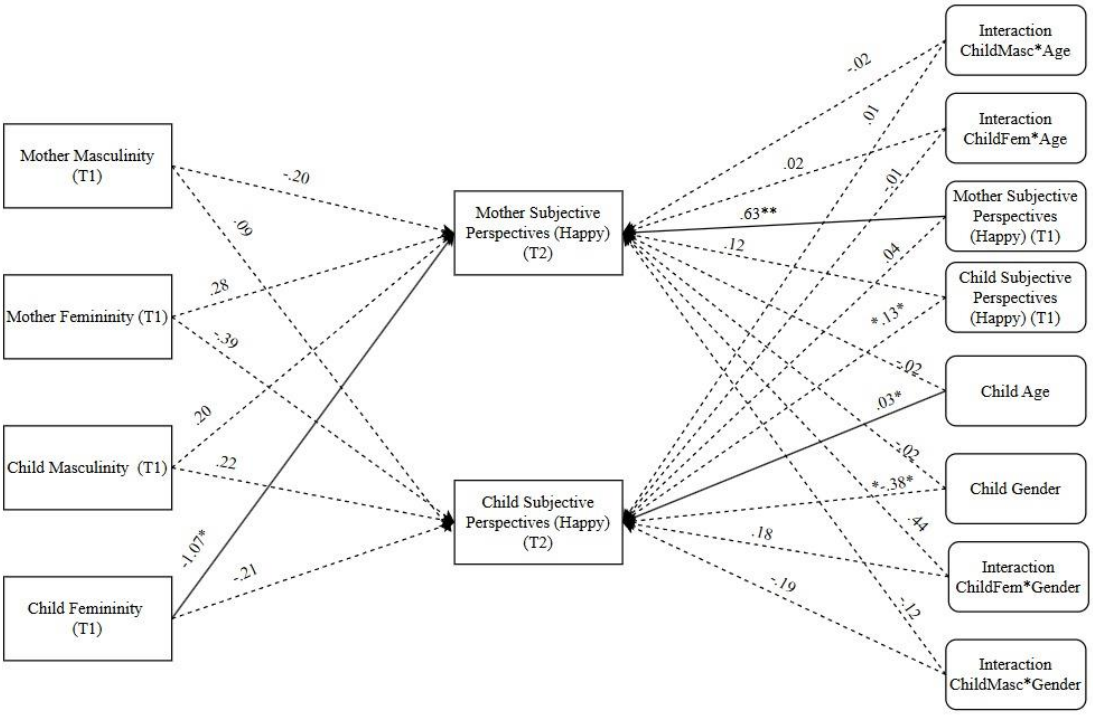

Figure 15. Path Model for Maternal and Child Gender-Roles and its Impact on Maternal and Child Subjective Perspectives Use Between Time 1 and Time 2 in Happy Memories in Elementary School

At the *middle school level*, the model for happy memories demonstrated good fit, $\chi^2(39)$ = 2.05, CFI = .93, RMSEA = .05. Maternal and child masculinity and femininity at Time 1 did not significantly predict either the mother's or child's use of subjective perspectives at Time 2. Once again, only child femininity at Time 1 predicted maternal use of subjective perspectives in Time 2; however this time it was a positive impact (β = .56, *SE* = .26, p = .03). Mothers' use of subjective perspectives at Time 1 predicted their own subjective perspectives use at Time 2 (β = .28, *SE* = .04, p < .001). Child use of subjective perspectives at Time 1 also predicted their own subjective perspectives use at Time 2 (β = .25, *SE* = .05, p < .001). No control paths or interaction terms involving child gender or age emerged as significant. Child's use

of subjective perspectives from time had a marginal positive impact on maternal use of subjective perspectives in time 2 (β = .11, *SE* = .06, *p* = .070) (see Figure 16).

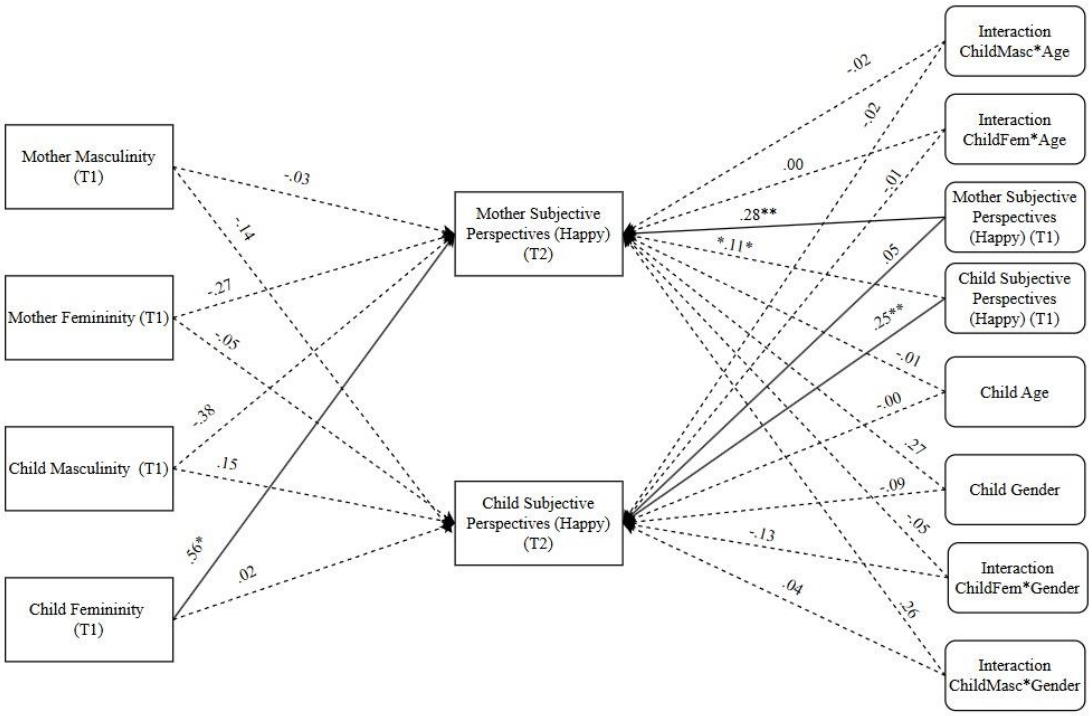

Figure 16. Path Model for Maternal and Child Gender-Roles and its Impact on Maternal and Child Subjective Perspectives Use Between Time 1 and Time 2 in Happy Memories in Middle School

At the *high school level*, the model for happy memories demonstrated acceptable fit, $\chi^2(39) = 76.55$, $p < .001$, CFI = .92, RMSEA = .07. Maternal and child masculinity and femininity at Time 1 did not significantly predict either the mother's or child's use of subjective perspectives at Time 2. Mothers' use of subjective perspectives at Time 1 predicted their own subjective perspectives use at Time 2 (β = .18, *SE* = .04, $p < .001$). Child use of subjective perspectives at Time 1 also predicted their own subjective perspectives use at Time 2 (β = .35, *SE* = .04, $p < .001$). Gender was marginally a predictor of child use of subjective (β = -.52, *SE* = .28, *p* = .06). From the interaction terms, the interaction between child masculinity and age at Time 1 positively predicted child use of subjective perspectives in Time 2 (β = .02, *SE* = .01, *p* = .03). Similarly, the interaction between child masculinity and gender at Time 1 was a positive predictor of child use of subjective perspectives at Time 2 (β = 1.16, *SE* = .60, *p* = .05) (see Figure 17).

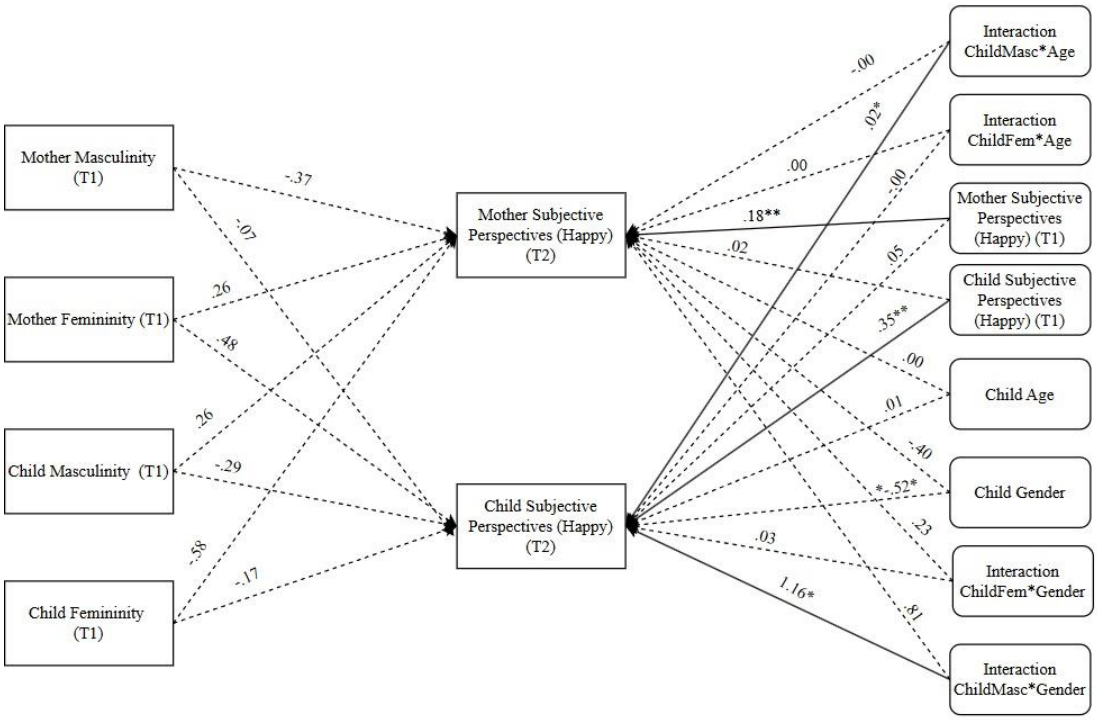

Figure 17. Path Model for Maternal and Child Gender-Roles and its Impact on Maternal and Child Subjective Perspectives Use Between Time 1 and Time 2 in Happy Memories in High School

3.5.2. Sad Memories

At the *elementary school level*, this model showed good fit $\chi^2(39) = 72.07$, p = .001 CFI = .94, RMSEA = .07. In the sad memory model, child masculinity at Time 1 was a negative predictor of child use of subjective perspectives at Time 2 (β = -.60, *SE* = .30, p = .04). Child femininity had a negative impact on the use of maternal subjective perspectives at Time 2 (β = -1.18, *SE* = .42, p= .005). Child gender negatively predicted the use of subjective perspectives in children (β = -.70, *SE* = .25, p = .004). Girls had a higher use of subjective perspectives.

Additionally, Maternal use of subjective perspectives at Time 1 predicted their own subjective perspectives use at Time 2 (β = .26, *SE* = .04, p < .001). Child use of subjective perspectives at Time 1 also predicted their own subjective perspective use at Time 2 (β = .32, *SE* = .08, p < .001). Moderator interaction terms again failed to reach significance (see Figure 18).

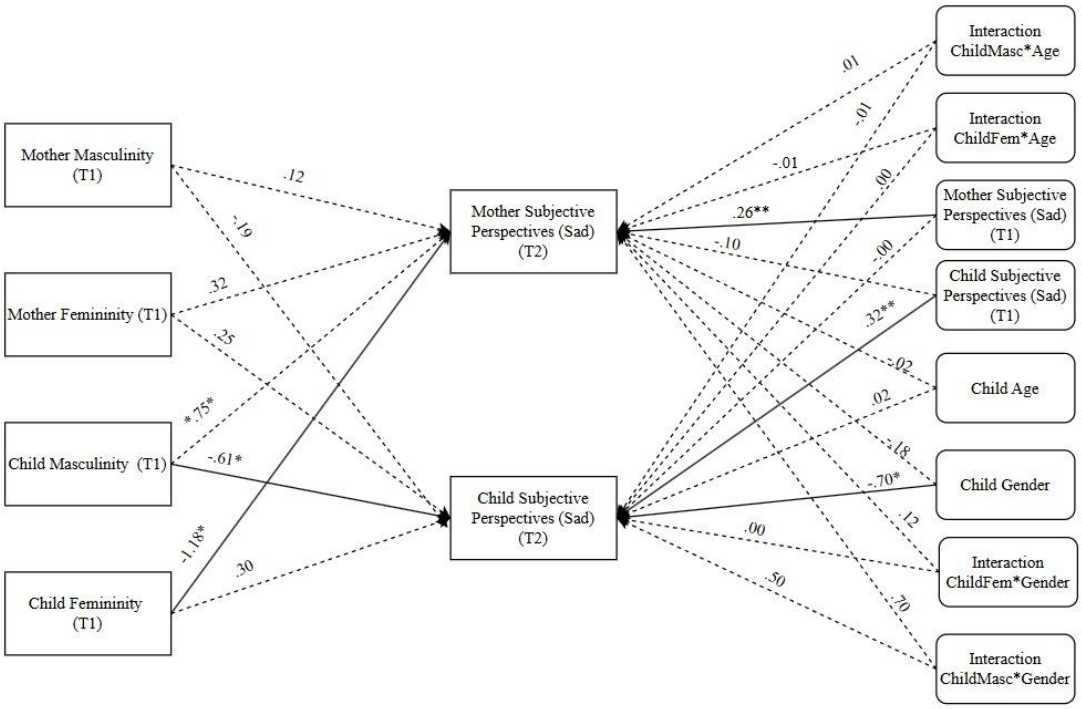

Figure 18. Path Model for Maternal and Child Gender-Roles and its Impact on Maternal and Child Subjective Perspectives Use Between Time 1 and Time 2 in Sad Memories in Elementary School

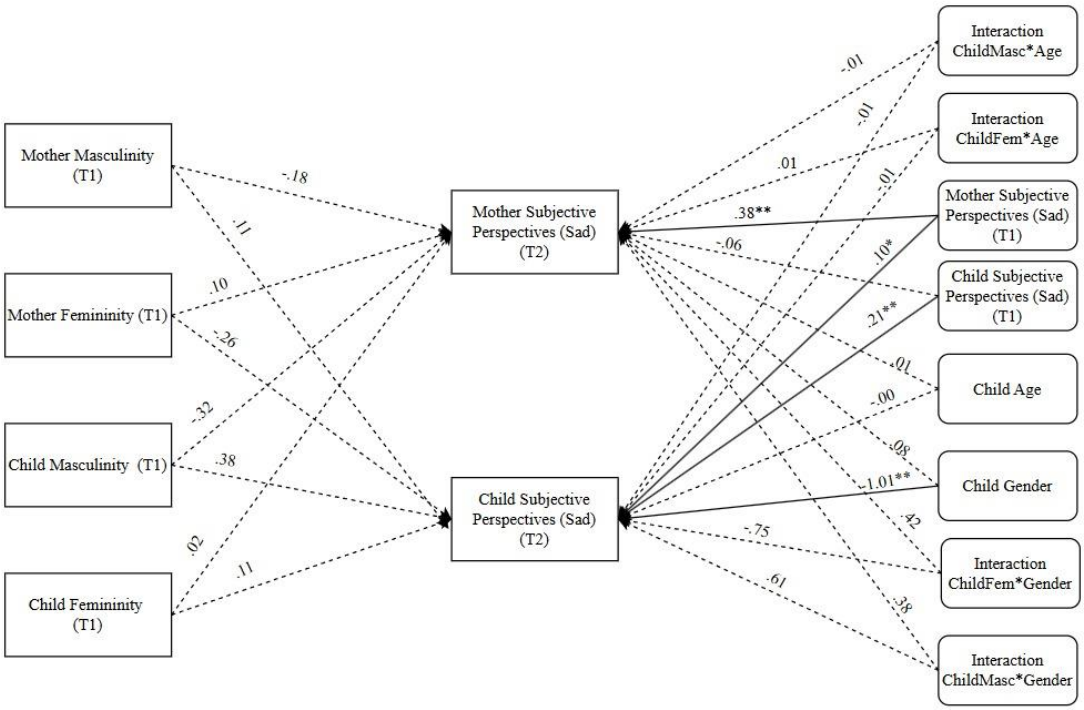

Figure 19. Path Model for Maternal and Child Gender-Roles and its Impact on Maternal and Child Subjective Perspectives Use Between Time 1 and Time 2 in Sad Memories in Middle School

At the *middle school level*, this model showed good fit $\chi^2(39) = 71.49$, p = .001, CFI = .95, RMSEA = .05. Gender roles did not emerge as significant in this model. Child gender negatively predicted the use of subjective perspectives in children (β = -1.10, *SE* = .27, $p < .001$). Girls had a higher use of subjective perspectives. Additionally, Maternal use of subjective perspectives at Time 1 predicted both their own subjective perspectives use (β = .38, *SE* = .06, $p < .001$) and child subjective perspectives use (β = .10, *SE* = .04, $p = .005$) at Time 2. Child use of subjective perspectives at Time 1 also predicted their own subjective perspectives use at Time 2 (β = .21, *SE* = .04, $p < .001$)—the interaction variables presented with no significant impact on subjective perspective use (see Figure 19).

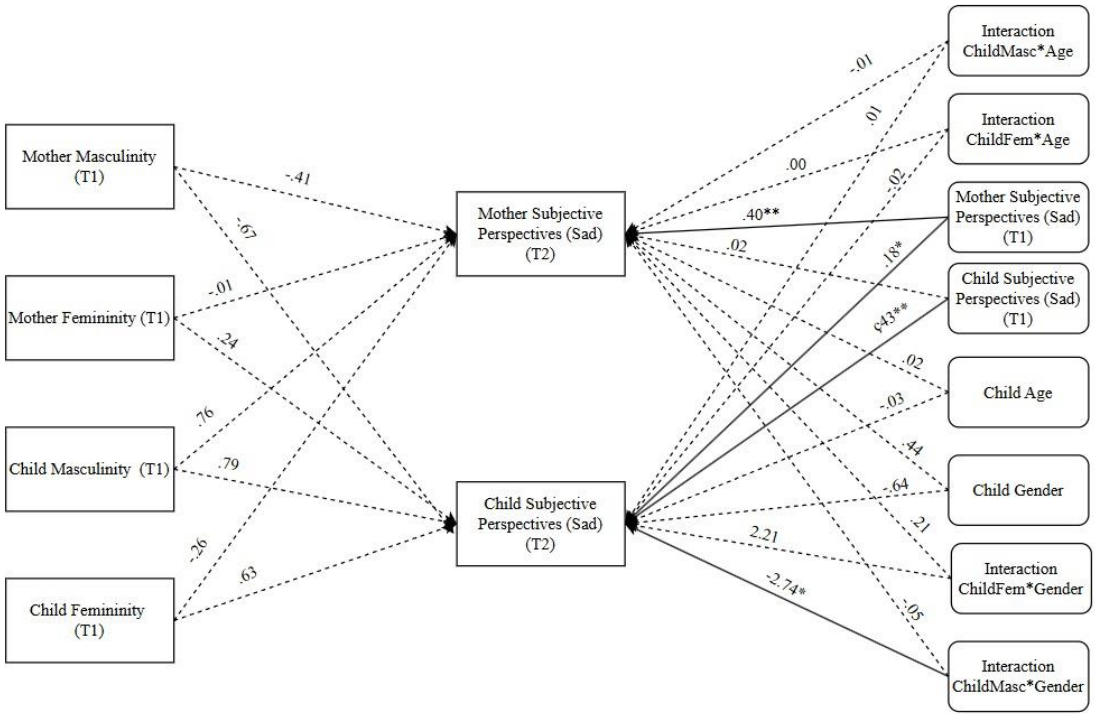

Figure 20. Path Model for Maternal and Child Gender-Roles and its Impact on Maternal and Child Subjective Perspectives Use Between Time 1 and Time 2 in Sad Memories in High School

At the *high school level*, this model showed acceptable fit $\chi^2(39) = 84.28$, p = .000, CFI = .93, RMSEA = .07. Gender roles did not emerge as significant in this model. Maternal use of subjective perspectives at Time 1 predicted both their own subjective perspectives use (β = .40, *SE* = .05, $p < .001$) and child subjective perspectives use (β = .18, *SE* = .09, $p = .04$) at Time 2. Child use of subjective perspectives at Time 1

also predicted their own subjective perspectives use at Time 2 (β = .43, *SE* = .07, $p <$ .001). The interaction between gender and child masculinity was significant (β=-2.74, *SE*=1.23, *p*=.03) in predicting child use of subjective perspectives in sad memories (see Figure 20).

3.6. Regression Analyses for the Factors at Time 1 that Impact Child Use of Subjective Perspectives at Time 2

3.6.1. Regression Analyses for Child Happy Memories

A hierarchical regression analysis was conducted to examine the factors at Time 1 that influence children's use of subjective perspectives in happy memories at Time 2 separated into school levels. At the *elementary school level***,** step 1 included mothers' subjective perspectives at Time 1, children's subjective perspectives at Time 1, and mothers' femininity and masculinity at Time 1. This model was significant, *F*(4,185) = 2.52, *p* .04. Step 2 added children's grade level, mothers' education, perceived socioeconomic status (SES), and geographical region. This model remained significant, *F*(8,181) = 3.25, *p* =.002. Step 3 incorporated children's age and gender, yielding a significant model *F*(10,179) = 2.74, *p*=.004. Step 4, the final step, added mothers' subjective perspectives at Time 2, which resulted in a significant final model, *F*(11,179) = 2.51, *p*= .006. In the final step of this analysis, the child's use of subjective perspectives in Time 1 (β = .18, *SE* = .08, *p*= .03) and the geographical region (β = -.73, *SE* = .29, *p*= .014) had an impact on the child's use of subjective perspectives in happy memories in Time 2. In summary, higher levels of subjective perspectives used by children at Time 1 were associated with increased use of subjective perspectives in children's happy memories at Time 2, and children who lived in urban areas had a higher use of subjective perspectives in happy memories.

The same analysis was conducted at the *middle school level*. Step 1 included mothers' subjective perspectives at Time 1, children's subjective perspectives at Time 1, and mothers' femininity and masculinity at Time 1. This model was significant, *F*(4,365) = 7.24, *p*< .001. Step 2 added children's grade level, mothers' education, perceived socioeconomic status (SES), and geographical region. This model

remained significant, $F(8,361) = 3.77$, $p < .001$. Step 3 incorporated children's age and gender, yielding a significant model, $F(10,359) = 3.03$, $p = .001$. Step 4, the final step, added mothers' subjective perspectives at Time 2, which resulted in a significant final model, $F(11,358) = 2.99$, $p < .001$. In the final step of this analysis, the child's use of subjective perspectives in Time 1 ($\beta = .25$, $SE = .05$, $p < .001$) had an impact on the child's use of subjective perspectives in happy memories in Time 2. In summary, higher levels of subjective perspectives used by children at Time 1 were associated with increased use of subjective perspectives in children's happy memories at Time 2.

Finally, the same analysis was conducted at the *high school level*. Step 1 included mothers' subjective perspectives at Time 1, children's subjective perspectives at Time 1, and mothers' femininity and masculinity at Time 1. This model was significant, $F(4,199) = 20.06$, $p < .001$. Step 2 added children's grade level, mothers' education, perceived socioeconomic status (SES), and geographical region. This model remained significant, $F(8,195) = 10.17$, $p < .001$. Step 3 incorporated children's age and gender, yielding a significant model $F(10,193) = 8.38$, $p < .001$. Step 4, the final step, added mothers' subjective perspectives at Time 2, which resulted in a significant final model, $F(11,192) = 7.59$, $p < .001$. In the final step of this analysis, the child's use of subjective perspectives in Time 1 ($\beta = .35$, $SE = .04$, $p < .001$) had an impact on the child's use of subjective perspectives in happy memories in Time 2. In summary, higher levels of subjective perspectives used by children at Time 1 were associated with increased use of subjective perspectives in children's happy memories at Time 2.

3.6.2. Regression Analyses for Child Sad Memories

A hierarchical regression analysis was conducted to determine the predictors of children's use of subjective perspectives in sad memories. At the *elementary school level*, step 1 included mothers' and children's subjective perspectives at Time 1, along with mothers' femininity and masculinity at Time 1. This model was significant, $F(4,197) = 5.96$, $p < .001$.

Table 12. Regression Analyses for the Factors at Time 1 that Impact Child Use of Subjective Perspectives at Time 2 in Happy Memories

	Elementary School			***Middle School***			***High School***		
Variables	***B(SE)***	***β***	***p***	***B(SE)***	***β***	***p***	***B(SE)***	***β***	***p***
	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}
Model 1	.03	2.52*	-	.06	7.24**	-	.27	20.06**	-
Intercept	1.13 (2.13)		.60	1.65(2.05)		.42	-.71(2.86)		.81
Child Subjective Perspective (T1)	.18(.08)	.16	.03	.25(.05)	.24	<.001	.35(.04)	.52	<.001
Mother Subjective Perspectives (T1)	.07(.04)	.16	.08	.03(.04)	.04	.46	.05(.05)	.07	.32
Mother Masculinity (T1)	.23(.25)	. 08	.36	-.09(.21)	-.02	.68	.03(.30)	.01	.92
Mother Femininity (T1)	-.36(.26)	-.12	.17	-.01(.22)	-.00	.96	.33(.34)	.07	.33
Model 2	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}
	.09	3.25*	3.82	.06	.3.77**	.35	.27	10.17**	.48
Grade Level	.45 (.38)	.14	.23	-.15(.29)	-.08	.62	.70(.46)	.24	.13
Mother Education	.03 (.11)	.02	.79	.08(.09)	.05	.38	.02(.12)	.01	.90
Geographical Region	-.73(.29)	-.19	.01	-.12(.23)	-.03	.60	.16(.37)	.03	.66
Mother Perceived SES	-.06(.07)	-.07	.38	-.04(.05)	-.03	.60	-.01(.09)	-.01	.91
Model 3	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}
	.08	2.74*	.74	.05	3.03**	.13	.27	8.38**	1.15
Child Gender	-.27 (.23)	-.09	.24	-.10(.22)	-.02	.66	-.29(.30)	-.06	.33
Child Age	.01 (.03)	.03	.82	.01(.02)	.06	.71	-.03(.03)	-.18	.26
Model 4	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}
	.08	2.51*	.33	.06	2.99**	2.49	.26	7.59**	.09
Mothers' Subjective Perspective (T2)	-.02 (.04)	-.05	.57	.07(.04)	.09	.12	.02(.08)	.02	.77

Step 2 introduced children's grade level, mothers' education, perceived SES, and geographical region, with the model remaining significant, $F(8,193) = 3.35$, $p = .001$. Step 3 added child age and gender, producing a significant model, $F(10,191) = 3.55$, $p < .001$). Step 4 added the mothers' use of subjective perspectives at Time 2, and the model remained significant, $F(11,190) = 3.25$, $p < .001$. In summary, greater use of subjective perspectives by children at Time 1 ($\beta = .31$, $SE = .08$, $p < .001$), and child gender, specifically girls ($\beta = -.70$, $SE = .26$, $p = .009$) were associated with greater use of subjective perspectives in children's sad memories at Time 2. The same analysis was conducted for children at the *middle school level*. Step 1 included mothers' and children's subjective perspectives at Time 1, along with mothers' femininity and masculinity at Time 1. This model was significant, $F(4,378) = 8.59$, $p < .001$. Step 2 introduced children's grade level, mothers' education, perceived SES, and geographical region, with the model remaining significant, $F(8,374) = 4.99$, $p < .001$. Step 3 added child age and gender, producing a significant model, $F(10,371) = 5.86$, $p < .001$). Step 4 added the mothers' use of subjective perspectives at Time 2, and the model remained significant, $F(11,371) = 7.05$, $p < .001$. In summary, greater use of subjective perspectives by children at Time 1 ($\beta = .23$, $SE = .05$, $p < .001$), higher maternal education level ($\beta = .28$, $SE = .12$, $p = .014$), child gender, specifically girls ($\beta = -1.14$, $SE = .27$, $p < .001$), and greater maternal use of subjective perspectives in Time 2 ($\beta = .13$, $SE = .03$, $p < .001$) were associated with greater use of subjective perspectives in children's sad memories at Time 2. Finally, the same analysis was conducted for children at the *high school level*. Step 1 included mothers' and children's subjective perspectives at Time 1, along with mothers' femininity and masculinity at Time 1. This model was significant, $F(4,250) = 11.43$, $p < .001$. Step 2 introduced children's grade level, mothers' education, perceived SES, and geographical region, with the model remaining significant, $F(8,246) = 6.26$, $p < .001$). Step 3 added child age and gender, producing a significant model, $F(10,244) = 5.40$, $p < .001$). Step 4 added the mothers' use of subjective perspectives at Time 2, and the model remained significant, $F(11,243) = 5.21$, $p < .001$. In summary, greater use of subjective perspectives by children at Time 1 ($\beta = .42$, $SE = .08$, $p < .001$ was associated with greater use of subjective perspectives in children's sad memories at Time 2.

Table 13. Regression Analyses for the Factors at Time 1 that Impact Child Use of Subjective Perspectives at Time 2 for Sad Memories

	Elementary School			***Middle School***			***High School***		
Variables	***B(SE)***	***β***	***p***	***B(SE)***	***β***	***p***	***B(SE)***	***β***	***p***
	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}
Model 1	.09	5.96**	-	.07	8.60**	-	.14	11.43**	-
Intercept	-1.39 (2.48)		.58	2.03(2.59)		.42	4.91(5.60)		.38
Child Subjective Perspective (T1)	.31(.08)	.26	<.001	.23(.05)	.25	<.001	.42(.08)	.34	<.001
Mother Subjective Perspectives (T1)	-.00(.03)	-.00	.98	.04(.04)	.05	.30	.06(.10)	.04	.56
Mother Masculinity (T1)	-.22(.31)	-.07	.47	.21(.27)	.04	.78	-.51(.56)	-.06	.37
Mother Femininity (T1)	.25(.27)	.08	.36	-.22(.29)	-.04	.46	.45(.66)	.04	.50
Model 2	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}
	.09	3.35**	.77	.08	4.99**	1.36	.14	6.26**	1.07
Grade Level	-.23(.47)	-.06	.62	-.05(.37)	-.02	.88	.72(.88)	.12	.41
Mother Education	.21(.12)	.14	.08	.28(.12)	.13	.01	.17(.23)	.05	.47
Geographical Region	-.22(.34)	-.05	.51	-.15(.28)	-.03	.61	.86(.69)	.08	.22
Mother Perceived SES	-.10(.08)	-.10	.19	-.05(.07)	-.03	.51	.12(.15)	.05	.43
Model 3	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}
	.11	3.55**	3.93	.11	5.86**	8.54	.15	5.40**	1.79
Child Gender	-.69(.27)	-.18	.01	-1.14(.27)	-.20	<.001	-1.01(.59)	-.10	.09
Child Age	.04(.03)	.13	.30	-.00(.03)	-.00	.98	-.07(.06)	-.17	.25
Model 4	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}
	.11	3.25**	.39	.15	7.05**	16.50	.15	5.21**	2.95
Mothers' Subjective Perspective (T2)	-.03(.05)	-.05	.53	.13(.03)	.21	<.001	.19(.11)	.12	.09

3.7. Regression Analyses for the Factors at Time 1 that Impact The Age of Memory Recall at Time 2

A hierarchical regression analysis was conducted to identify predictor variables at Time 1 that influence the age of memory reported in children's happy memories at Time 2. At the *elementary school level*, step 1 included mothers' and children's reported age of memory and mothers' femininity and masculinity at Time 1. This model was significant, $F(4,197) = 3.67$, $p = .007$. Step 2 added children's grade level, mothers' education, mothers' perceived SES, and geographical region, resulting in a significant model, $F(8,193) = 6.83$, $p < .001$. Step 3 incorporated children's age and gender, which further improved the model, $F(10,191) = 6.11$, $p < .001$. Step 4 included mothers' age of memory at Time 2 and yielded a significant model, $F(11,190) = 6.39$, $p < .001$. In summary, child's reported age of memory ($\beta = .23$, $SE = .08$, $p = .002$), maternal education levels ($\beta = .38$, $SE = .12$, $p = .001$), geographical region ($\beta = -.69$, $SE = .34$, $p = .042$), and mothers age of reported memory at Time 2 ($\beta = .04$, $SE = .02$, $p = .008$) influenced the age of reported age of memory in happy memories. Specifically, higher reported age of memory in children at Time 1 and mothers at Time 2, higher education levels in mothers and children in rural areas, reported older ages for their happy memories.

The same analysis was conducted for children at the *middle school level*. Step 1 included mothers' and children's reported age of memory and mothers' femininity and masculinity at Time 1. This model was significant, $F(4,378) = 7.65$, $p < .001$. Step 2 added children's grade level, mothers' education, mothers' perceived SES, and geographical region, resulting in a significant model, $F(8,374) = 6.77$, $p < .001$. Step 3 incorporated children's age and gender, which further improved the model, $F(10,372) = 5.71$, $p < .001$. Step 4 included mothers' age of memory at Time 2 and yielded a significant model, $F(11,371) = 5.19$, $p < .001$. Child age of memory at Time 1 ($\beta = .20$, $SE = .05$, $p < .001$) and maternal education ($\beta = .25$, $SE = .11$, $p = .020$) had an impact on child age of memory at Time 2.

The same analysis was conducted for children at the *high school level*. Step 1 included mothers' and children's reported age of memory and mothers' femininity and

masculinity at Time 1. This model was significant, $F(4,249) = 9.06$, $p < .001$. Step 2 added children's grade level, mothers' education, mothers' perceived SES, and geographical region, resulting in a significant model, $F(8,245) = 5.60$, $p < .001$. Step 3 incorporated children's age and gender, which further improved the model, $F(10,243) = 4.84$, $p < .001$. Step 4 included mothers' age of memory at Time 2 and yielded a significant model, $F(11,242) = 4.45$, $p < .001$. In the final step of this analysis, children's age of memory at Time 1 ($\beta = .31$, $SE = .07$, $p < .001$) had an impact on the child's reported memory of subjective perspectives in happy memories in Time 2.

3.8. Regression Analyses for the Factors at Time 1 That Impact Age of Reported Memory at Time 2 in Sad Memories

A hierarchical regression analysis was performed at the *elementary school level* to determine which variables at Time 1 predict the reported age of memory in children's sad memories at Time 2. Step 1 included mothers' and children's age of reported memory and mothers' femininity and masculinity at Time 1. This model was significant, $F(4,197) = 2.78$, $p = .028$. Step 2 added children's grade level, mothers' education, mothers' perceived SES, and geographical region. The model was significant, $F(8,193) = 3.00$, $p = .003$. Step 3 incorporated children's age and gender, yielding a nonsignificant model, $F(10,191) = 2.60$, $p = .006$. Step 4 added mothers' age of memory at Time 2, but this final step was not statistically significant, $F(11,190) = 2.35$, $p = .010$. In summary, higher age of memory of children at Time 1 ($\beta = .28$, $SE = .09$, $p = .003$) and higher maternal education ($\beta = .34$, $SE = .14$, $p = .016$) were significant predictors of the reported age of memory in sad memories.

The same analysis was conducted for children at the *middle school level*. Step 1 included mothers' and children's reported age of memory and mothers' femininity and masculinity at Time 1. This model was significant, $F(4,378) = 12.59$ $p < .001$. Step 2 added children's grade level, mothers' education, mothers' perceived SES, and geographical region. The model improved and was significant, $F(8,374) = 8.78$, $p < .001$). Step 3 incorporated children's age and gender, yielding a significant model, $F(10,371) = 7.60$, $p < .001$.

Table 14. Regression Analyses for the Factors at Time 1 That Impact Age of Reported Memory at Time 2 in Happy Memories

	Elementary School			***Middle School***			***High School***		
Variables	***B(SE)***	***β***	***p***	***B(SE)***	***β***	***p***	***B(SE)***	***β***	***p***
	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}
Model 1	.05	3.67*	-	.08	7.65**	-	.11	9.06**	-
Intercept	-2.25(2.47)		.36	4.01(2.42)		.10	1.99(3.89)		.61
Child Age of Memory (T1)	.23(.08)	.20	.002	.20(.05)	.19	<.001	.31(.07)	.29	<.001
Mother Age of Memory (T1)	-.02(.02)	-.07	.29	.03(.02)	.10	.06	.03(.02)	.09	.21
Mother Masculinity (T1)	.16(.31)	.04	.60	-.08(.25)	-.02	.73	-.30(.38)	-.05	.44
Mother Femininity (T1)	-.33(.28)	-.09	.24	.18(.27)	.04	.50	.16(.45)	.02	.72
Model 2	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}
	.19	6.83**	9.36	.05	6.77**	5.53	.13	5.60**	1.99
Grade Level	.65(.48)	.16	.17	.59(.34)	.26	.08	.28(.59)	.07	.64
Mother Education	.38(.12)	.23	.001	.25(.11)	.12	.02	.28(.15)	.11	.07
Geographical Region	-.69(.34)	-.14	.04	-.02(.26)	-.00	.94	.14(.47)	.02	.76
Mother Perceived SES	-.00(.08)	-.00	.97	-.02(.06)	-.01	.78	-.10(.11)	-.06	.34
Model 3	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}
	.20	6.11**	2.75	.01	5.71**	1.40	.13	4.84**	1.68
Child Gender	-.46(.26)	-.11	.08	-.40(.25)	-.08	.11	-.68(.41)	-.10	.10
Child Age	.05(.04)	.18	.15	-.01(.03)	.03	.05	.02(.04)	.06	.65
Model 4	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}
	.23	6.39**	7.22	.00	5.19**	.17	.13	4.45**	.69
Mothers' Age of Memory (T2)	.04(.02)	.18	.008	.01(.01)	.02	.68	.02(.02)	.06	.41

Table 15. Regression Analyses for the Factors at Time 1 That Impact Age of Reported Memory at Time 2 in Sad Memories

	Elementary School			***Middle School***			***High School***		
Variables	***B(SE)***	***β***	***p***	***B(SE)***	***β***	***p***	***B(SE)***	***β***	***p***
	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}
Model 1	.03	2.78*	-	.11	12.59**	-	.27	24.61**	-
Intercept	5.16(3.00)		1.72	3.74(2.69)		.17	6.82(3.43)		.05
Child Age of Memory (T1)	.28(.09)	.21	.003	.29(.06)	.26	<.001	.47(.06)	.48	<.001
Mother Age of Memory (T1)	-.03(.02)	-.11	.12	.00(.02)	.02	.77	-.03(.02)	-.10	.13
Mother Masculinity (T1)	.13(.37)	.03	.72	.15(.27)	.03	.58	-.93(.34)	-.16	.007
Mother Femininity (T1)	-.19(.33)	-.05	.57	.70(.30)	.12	.02	.34(.40)	.05	.40
Model 2	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}
	.07	3.00*	3.10	.14	8.78**	4.51	.28	13.01**	1.30
Grade Level	1.01(.57)	.23	.08	1.23(.38)	.47	.001	.02(.53)	.00	.98
Mother Education	.34(.14)	.19	.02	.06(.12)	.03	.62	-.20(.14)	-.08	.14
Geographical Region	.04(.40)	.01	.92	.19(.29)	.03	.51	.23(.42)	.03	.58
Mother Perceived SES	-.07(.09)	-.06	.44	.03(.07)	.02	.66	-.07(.09)	-.04	.44
Model 3	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}
	.07	2.60*	1.01	.15	7.60**	2.57	.27	10.49**	.58
Child Gender	-.40(.32)	-.09	.21	-.23(.28)	-.04	.41	.34(.36)	.05	.36
Child Age	-.03(.04)	-.08	.54	-.06(.03)	-.28	.05	.02(.03)	.07	.60
Model 4	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}	R^2_{adj}	***F***	F_{change}
	.07	2.35*	.00	.15	7.00**	.98	.27	9.70**	1.57
Mothers' Age of Memory (T2)	.00(.02)	.00	.99	.01(.01)	.05	.32	.02(.02)	.08	.21

Step 4 added mothers' age of memory at Time 2, yielding a statistically significant model $F(11,371) = 7.00$, $p < .001$. In summary, higher reported age of memory in Time 1 ($\beta = .29$, $SE = .06$, $p < .001$), higher maternal femininity ($\beta = .70$, $SE = .31$, $p = .022$) and higher grade levels ($\beta = 1.23$, $SE = .38$, $p = .001$) were associated with higher age of reported sad memories in Time 2.

The same analysis was conducted for children at the *high school level*. Step 1 included mothers' and children's use of subjective perspectives and mothers' femininity and masculinity at Time 1. This model was significant, $F(4,250) = 24.61$, $p < .001$. Step 2 added children's grade level, mothers' education, mothers' perceived SES, and geographical region. The model was significant, $F(8,246) = 13.01$ $p < .001$. Step 3 incorporated children's age and gender, yielding a significant model, $F(10,244) = 10.49$, $p < .001$. Step 4 added mothers' age of memory at Time 2, yielding a statistically significant model $F(11,243) = 9.70$, $p < .001$. In summary, higher reported age of memory in Time 1 ($\beta = .47$, $SE = .06$, $p < .001$) and lower maternal masculinity ($\beta = -.93$, $SE = .34$, $p = .007$) were associated with higher age of reported sad memories in Time 2.

CHAPTER 4

DISCUSSION

This study aimed to investigate how maternal and child gender role traits (i.e., masculinity and femininity) impact children's autobiographical memory development, with a specific focus on two key components: the use of subjective perspectives in memory narratives and the age at which memories are recalled. Because children are influenced by their surroundings, social-cultural theory offers a comprehensive understanding of how environmental factors shape gender roles and traits, which in turn influence our autobiographical memory use. Drawing on a longitudinal design and data from children at different educational stages, the findings provide novel insights into how gendered traits and developmental timing interact with memory construction. Data were collected from 185 schools involving children between the ages of 7 and 18. During Time 1 of the project, there were a total of 6,211 children, 5,988 mothers, and 865 fathers. With a significant number of participants, approximately 50,000 memories were analyzed during the data cleaning process. Due to the extensive amount of qualitative data obtained, a subsample of participants was selected to be incorporated in the data analyses. Therefore, a total sample of 2,656 mother-child pairs was formed by selecting four students from each grade level in schools. The data sets were further separated into happy and sad memories that had matching mother-child dyads between Time 1 and Time 2. Therefore, there were two separate data sets, one for happy memories and one for sad memories. For Time 1 and Time 2, the total participants for happy memories in this study was 764 mother-child dyads. The total number of participants with sad memories included in this study was 845 mother-child dyads. Mothers and children were given the Bem Sex Role Inventory to assess their gender role traits and were given the Autobiographical Memory Questionnaire to assess their subjective perspectives use in happy and sad memories. Notably, this study considered the role

of memory valence (happy vs. sad) and child age and gender as moderators of these relationships.

This chapter presents a synthesis of the key findings from the study, interpreted in light of existing literature. The discussion section is organized into five sections. The first section reviews the main correlational findings among the study variables. The second section addresses the first hypothesis by examining the influence of maternal gender role traits on children's gender role traits across school levels. The third section discusses the findings related to the third and fourth hypotheses, focusing on how maternal gender role traits predict children's use of subjective perspectives and reported age of memory recall. The fourth section examines the longitudinal associations between gender role traits and the use of subjective perspectives at Time 1 and Time 2. Lastly, the fifth section discusses the broader set of predictors that influence children's use of subjective perspectives and age of memory recall, offering a more exploratory insight into the circumstantial and demographic factors at play.

4.1. Preliminary Findings: Correlations Among Key Variables

This section examines the significant correlations observed among maternal and child gender role traits, subjective perspectives, age of autobiographical memory recall, and demographic variables across different school levels and memory conditions (happy and sad). The discussion is structured around meaningful themes, highlighting both consistencies and variations across developmental stages and memory conditions.

4.1.1. Key Findings and Discussion of Gender Role Traits

A consistent finding across all school levels and memory conditions was the strong positive correlation between children's masculine and feminine traits. This suggests that these gender-role traits are not conflicting and instead may coexist in children's personalities, aligning with Bem's (1981) conceptualization of androgyny. Similarly, maternal masculinity and femininity were also positively associated across all levels, highlighting the integrated and multidimensional nature of gender-role traits in mothers as well.

Moreover, maternal gender traits were positively correlated with child gender traits on different school levels and memory conditions. For instance, maternal femininity was associated with child masculinity at the elementary school level for both happy and sad memories. Young children may internalize related and emotionally expressive behaviors, translating them into prosocial and/or independent, autonomous traits (Endendijk et al., 2013; Martin & Ruble, 2004). This is particularly evident in sad memories that require more emotional processing and support, suggesting that maternal responsiveness encourages children to engage in expressive roles. Thus, this further suggests that maternal femininity at younger ages may set the foundation for autonomous traits in both girls and boys later in life (Zaman & Fivush, 2013). Mothers who are high in nurturance and who provide supportive environments appear to encourage children's independent functioning (Kağitçibaşı, 2007). On the middle school level, maternal masculinity was associated with both child masculinity and femininity. This finding suggests that mothers may transition from a more emotional maternal character to a more active role in motherhood when modeling for their children. Research demonstrates that mothers transition from nurturing traditional roles to more multidimensional and egalitarian roles as children get older (Endendijk, 2022; Galinsky, 1987). As children reach middle school, peers and social settings challenge traditional gender norms; therefore, mothers may be prompted to develop a more proactive identity to support their children in balancing their gender roles (Dittman et al., 2023; Katz-Wise, 2010). Furthermore, mothers who model assertive, autonomous behavior are tied to prosocial and independent development in adolescence (Perry & Pauletti, 2011); therefore, this implies that children appear to exhibit development not just in masculine traits, but also the freedom to explore outside the expected gender norms.

The high school level associations were different. Maternal masculinity was associated with both child masculinity and femininity for happy memories, while maternal femininity had an impact on both child masculinity and femininity for sad memories. These results indicate that in the context of sad memories, maternal emotional support during shared narratives may promote balanced identity development. Research suggests that when maternal femininity is high, mothers may reinforce emotional sharing during sad narratives. Conversely, maternal masculinity

may support more autonomous and self-focused narratives in happy situations (Fivush, 2007). It is appears that early childhood tends to primarily reflects emotional modeling, while adolescence may allow for the integration of both masculine and feminine traits.

These findings support the theoretical frameworks proposed in the current study. They suggest a modeling effect consistent with Bandura's (1986) social learning theory, which suggests that children tend to internalize and imitate traits exhibited by their parents, regardless of gender congruence. The results also align with the gender schema theory (Bem, 1981), which emphasizes that children are likely to develop an understanding of gender roles through their social experiences and cognitive processing. However, the findings extend beyond traditional social learning explanations by supporting a compensatory model. This model suggests that children may adopt behaviors either identical to or in contrast with their parents' gender-role characteristics; rather than just imitating them. The compensatory model has roots in the gender schema theory (Bem, 1981) and social cognitive theory (Bussey & Bandura, 1999); however, it emphasizes flexibility and adaptation to perceived gaps or imbalances in the environment. The non-linear associations in this study support this framework. Therefore, children are not just passive observers who model the same behaviors but appear to actively construct their own gender identity by responding to and balancing the traits they see in their caregivers. As Endendijk et al. (2016) suggest, when parents display non-stereotypical gender-role traits -such as a mother high in masculinity- children of any gender may be more likely to develop a broader and more flexible range of gendered traits.

4.1.2. Subjective Perspective Use

Subjective perspective use in children's narratives demonstrated developmental and gender-based patterns. In both happy and sad memory conditions, girls used more subjective perspectives than boys at the elementary school level, consistent with findings that girls tend to produce more elaborative and emotionally rich autobiographical narratives (Fivush, 2011; Zaman & Fivush, 2013). These gender differences are often attributed to mothers engaging in more elaborate reminiscing

with their daughters (Fivush et al., 2000). Additionally, tapping into early narrative development, which is shaped by gendered socialization emerging in early childhood. However, this gender difference begins to change at the middle and high school levels, where, instead of biological gender, there appears to be a developmental shift towards the influence of gender-role traits. For happy memories, both boys and girls with high levels of masculinity and femininity reported higher subjective perspective use, suggesting a developmental shift toward integration of gender traits in narrative expression. However, for sad memories, child gender role traits did not have an impact on the use of subjective perspectives in middle school. In high school, only high femininity had an impact on the use of subjective perspectives. These patterns imply a shift in middle and high school levels, whereby children may begin to internalize and express their own gender identity, once again supporting the gender schema theory (1981), which suggests that children develop cognitive frameworks about gender from their environment, influencing how they encode and express experiences. These findings support that high levels of both masculinity and femininity in middle/high school may reflect greater emotional flexibility, self-awareness, and higher overall well-being (Korlat et al., 2022). Sad memories suggest a different pattern. The fact that gender-role traits did not impact the use of subjective perspectives in sad memories in middle school, but femininity did so in high school, suggests the role of emotion regulation. Sad memories can be emotionally challenging, and adolescents in middle school may lack the emotional regulation skills necessary to integrate these experiences into coherent narratives, especially if they have not received support in doing so (Bauer & Fivush, 2010).

By high school, adolescents high in emotional sensitivity (a trait of traditional femininity)- regardless of gender- are more likely to engage with emotionally challenging content (Mclean & Mansfield, 2011). Grysman et al. (2016) demonstrated that while feminine traits enhance affective elaboration in memory, masculine traits are context-sensitive. Therefore, it can be inferred that both traits are expected to support the expression of happy memories, but only femininity tends to supports the elaboration of sad memories in high school. Additionally, happy memories are less threatening and more socially acceptable. Emotional expression that incorporates both masculine and feminine traits can support emotional well-

being. In contrast, sad memories rely on emotional expression tied to femininity and may not be open to norms in masculinity. Once again, these findings highlight a nuanced, developmentally and contextually sensitive pattern in how children employ subjective perspectives in autobiographical memory narratives.

Furthermore, children's subjective perspective use was also positively correlated with age, grade level, and maternal education across memory conditions. These findings further support the existing literature, which indicates that autobiographical memory development advances in line with cognitive and language abilities. Older children tend to exhibit greater memory specificity, structure, and emotional detail in their narratives. As mentioned previously, maternal education is often associated with higher elaborative reminiscing, which in turn fosters more detailed and emotionally rich content in children's memory narratives (Reese, 2009).

Maternal use of subjective perspectives was significantly correlated with both maternal masculinity and femininity, particularly in the elementary and high school groups. This finding aligns with Bem's theory (1974) that androgynous individuals have greater behavioral flexibility and emotional insight. Therefore, theoretically, androgynous individuals are thought to be better equipped to express emotionally and cognitively rich memory narratives. These findings suggest a divergence in how gender role traits impact the use of subjective perspectives in mothers and children. This difference implies that while an integration of both traits supports reflective narrative abilities in mothers (adults), for children, masculinity may promote more elaborative narrative construction. These findings support the notion that gender role traits may function differently across developmental stages and roles (İmamoğlu, 1998; Pleck, 1995). Additionally, maternal education positively predicted both maternal and child use of subjective perspectives, highlighting the role of maternal education attainment in shaping narrative practices.

4.1.3. Age of Memory Recall

Across all school levels and conditions, there was a positive correlation between children's age and their age of memory recall. This indicates a developmental trend

in the accessibility and reporting of autobiographical memories as children grow older. In the elementary school group, maternal age of memory was negatively associated with maternal masculinity and femininity, suggesting that mothers who have higher masculine and feminine qualities recalled earlier memories. Although this finding is not directly studied in the literature, insights could be drawn from related studies. According to the gender schema theory (1981), individuals with androgynous traits—both masculine and feminine —may use more flexible schemas. Therefore, mothers who are high in masculinity and femininity might be more in tune with their emotions and be able to recall earlier memories. Women also report earlier memories compared to men, as they engage in more frequent and elaborative discussions of personal events (Bauer et al., 2003; Friedman & Pines, 1991; MacDonald et al., 2000).

Unexpectedly, by the high school level, mothers with higher perceived socioeconomic status reported later autobiographical memories. This finding contrasts with previous literature suggesting that higher socioeconomic status is typically associated with greater cognitive development and richer memory narratives in children due to more parental involvement and elaborative parent-child interactions, which promote earlier recall of memories (Fivush et al., 2006; Reese et al., 2010). One possible explanation is that mothers from higher socioeconomic backgrounds may be more selective in memory, focusing on significant or emotionally important memories rather than earlier, less organized experiences (Jack & Hayne, 2007).

4.1.4. Contextual and Demographic Influences

Urban versus rural environment, as captured by geographical region, also demonstrated significant correlations. In elementary school, urban residence was associated with higher maternal education, socioeconomic status, child gender traits, as well as greater use of subjective perspectives by both mothers and children. These results support research indicating that urban environments may offer richer socialization experiences and diverse cultural norms, which further promote greater emotional expressiveness and the use of subjective perspectives in memory

narratives (Scroeder et al., 2019). These findings align with existing literature that emphasizes how environmental factors contribute to the development of autobiographical memory and emotional expressiveness (Reese et al., 2010; Wang, 2001). Maternal education and socioeconomic status were positively associated with maternal masculinity and with child memory outcomes across all school levels, emphasizing the importance of parental background in supporting memory development.

4.1.5. Summary

These correlational findings reveal consistent patterns across school levels and memory conditions while highlighting key developmental and contextual variations. Gender-role traits were found to co-occur and reinforce each other across dyads. Maternal traits, both masculinity and femininity, were central in fostering both maternal and children's subjective perspective use, especially in happy memories. Only maternal femininity had an impact on the child's subjective perspective use on the high school level. As children matured, both masculine and feminine traits appeared to be important in supporting memory elaboration. Sociodemographic factors such as maternal education and urban environment also played a significant role in shaping both child and maternal autobiographical memory. These insights offer a basic understanding of the factors that influence memory socialization and assist in interpreting future path and longitudinal analyses.

4.2. Key Findings of Maternal Gender-Role Traits in Child Gender Role Traits

This section addresses the first hypothesis of this study: maternal masculinity and femininity will have a positive influence on the child's masculinity and femininity. More specifically, maternal masculinity will impact child masculinity, and maternal femininity will impact child femininity. To examine this hypothesis, hierarchical regression analyses were conducted across different school levels to explore the impact of maternal gender role traits on those of the child.

The findings indicate that maternal gender role traits were significantly associated with children's gender role expressions. Higher maternal masculinity predicted

higher child masculinity both in elementary school and middle school. This finding aligns with the existing literature and the theoretical frameworks utilized in this study. The social cognitive theory (Bussey & Bandura, 1999) presumes that modeling plays a crucial role in child development. Children learn gendered behaviors through observing and imitating their caregivers' gender expressions. Therefore, it can be implied that when mothers display masculine traits, they model those characteristics for their children, thereby shaping the children's gendered identity. Studies support this idea; for example, Endendijk et al. (2018) demonstrated that parental gendered behaviors-including maternal expressions of masculinity and/or femininity-shape children's gender-typed behaviors through modeling and reinforcement. Another significant finding was that the interactions between maternal masculinity and grade had a negative impact on child masculinity, both in elementary and middle school. This means that the relationship between maternal masculinity and child masculinity appears to become weaker as children get older. This implies that younger children might be more influenced by their parents' gender traits. As children grow older and enter adolescence, societal norms, peers, and social media become more influential factors than caregiver influence (Leaper & Friedman, 2007). Finally, in elementary school, the interaction between maternal masculinity and gender had a negative impact on child masculinity. The influence of maternal gender-role traits appears to be moderated by child-specific factors such as gender. These findings suggest that the effect of maternal masculinity on child masculinity is more substantial for girls than it is for boys. As previously mentioned, girls may internalize maternal masculine behaviors and view their mothers as models for their identity development, aligning with a study that demonstrates that girls with non-stereotypical, independent mothers may adopt more masculine-typed traits themselves (Endendijk et al., 2016). Sons, on the other hand, may not be as significantly impacted by their mothers' masculine traits. A few studies suggest that this may be due to compensatory modeling, in which boys may react oppositely to the gendered traits that their mothers perceive as contrasting to their own (Grysman & Denney, 2007). However, in the Turkish population, boys may already be experiencing and privy to masculine traits from their fathers and surroundings. They may already possess these masculine traits and may not be influenced by them when their mothers exhibit signs of masculinity.

High school findings show different results. Boys in high school were found to exhibit higher levels of masculinity. Finally, boys with highly feminine mothers reported slightly lower masculinity. Whereas for girls, maternal femininity had a weaker effect. Unlike what was mentioned before, this finding supports the social cognitive theory (Bussey & Bandura, 1999) and gender schema theory (Bem, 1981). These theories suggest that children actively process observed behaviors and selectively adopt those that are emphasized. Therefore, boys in nurturing environments may not prioritize competitive or dominant behaviors. Children seem to not simply mimick the same gendered behaviors but build gender schema based on role models and contextual cues. With a highly feminine mother, boys may be lowering traditional masculine gender traits. When a mother models more traditional feminine behavior, children—especially boys —may develop a sense of self that identifies more with traditional feminine roles and less with masculine traits (Ditmann et al., 2023). Endendijk (2018) summarizes that when mothers do not follow typical feminine roles, children are also more likely to display less stereotypical gender attitudes and are aligned with more masculine-typed behaviors. Therefore, it could be implied that with highly feminine mothers, children may be less aligned with masculine traits. Another study confirmed this finding in the United States. A longitudinal study found that mothers' gendered behavior predicted children's own gender stereotypes and career preferences. Mothers who frequently engage in traditional feminine roles, such as household chores, had children who later favored less masculine traits or less gender-typed roles themselves (Halpern & Perry-Jenkins, 2016).

When examining child femininity, we observe that children in lower grades in middle school exhibit higher feminine qualities. Also, the interaction between maternal masculinity and child grade level is negatively related. These findings could be interpreted as higher maternal masculinity being less strongly associated with children's gendered behaviors as they get older. Research shows that early adolescence (ages 11-14) is a time when children experience greater cognitive, emotional, and social independence (Steinberg & Morris, 2001). During this period, parental influence tends to decrease, leading teens to rely more on peer norms and focus on developing their own identities (Galambos et al., 2009). Thus, the negative

interaction may reflect a developmental shift: as middle schoolers age, they are less influenced by maternal masculinity.

Finally, a significant result similar to that of child masculinity emerged on the high school level for child femininity. Once again, the interaction between maternal masculinity and child gender had a negative impact on child femininity. This is another rich finding. Just like maternal masculinity impacted child masculinity, maternal masculinity also impacted child femininity, but more so in girls. When mothers express higher masculine traits, their daughters tend to exhibit higher feminine (and masculine) traits. These results are a significant contribution to the literature. More so than maternal femininity, maternal masculinity appears to have an impact on girls more than boys and further supports the development of both girls' masculine and feminine traits. This aligns with social cognitive theory; a daughter who sees a mother modeling autonomous and independent behaviors, along with caring and nurturing behaviors, seems to adopt both sets of traits —thereby producing a more balanced gendered identity. However, this finding suggests something more than simple modeling. Assuming that mothers in Türkiye already have feminine qualities, studies show that individuals with androgynous gender roles tend to have better self-esteem and are socially more adaptable (Yu et al., 2020) and that children with a higher consciousness of gender equality are more likely to exhibit androgynous gender roles (Zhang et al., 2024). A study conducted by Tang et al. (2011) confirmed that girls are more aware of gender equality across all school levels compared to boys, which supports our findings that girls are more likely to be impacted by their mothers' gender role traits than boys. Throughout the findings, it is evident that the effect of maternal masculinity and femininity is not uniform across all children. Instead, the influence of maternal gender-role traits appears to be moderated by child-specific factors such as gender.

Converging results show that maternal masculinity predicts the development of child masculinity and femininity in the earlier stages of school and that this impact likely decreases as children enter high school. As children grow older, the social environment appears to increasingly shape gender-role development, thereby reducing the impact of maternal characteristics. Additionally, maternal masculinity

appears to play a key role in the development of child masculinity, more so in girls than in boys. It is plausible that girls may be more sensitive to maternal expressions of gender traits, especially those that challenge the norms of societal expectations.

This analysis aimed to address the first hypothesis of this study: maternal masculinity and femininity will positively influence the child's masculinity and femininity. More specifically, maternal masculinity will impact child masculinity, and maternal femininity will impact child femininity. However, it was found that maternal masculinity played a greater role in impacting both child masculinity and child femininity. Maternal femininity did not have a significant impact, if any, on child femininity.

4.3. Discussion on Key Findings for Structural Equation Model

This section of the thesis will present the results of the path analyses conducted in this study. The path analyses were conducted in order to test the second and third hypotheses: that high maternal masculinity and femininity will have a positive impact on the use of subjective perspectives in autobiographical memories in children, more specifically in daughters, and that maternal masculinity and femininity will predict an earlier age of memories in children.

As mentioned earlier, the initial path analysis aimed to investigate the impact of mothers' gender roles on children's gender roles, which in turn influence the use of subjective perspectives and the age of memory recall. However, due to a poor fit, the paths had to be analyzed separately. These analyses are separated into maternal and child variables, school levels, and two memory conditions, resulting in 12 different outcomes.

4.3.1. Happy Memories

4.3.1.1. Maternal Model

According to the maternal model, child age has an impact on the use of subjective perspectives for children at the elementary school level. These findings are consistent

with the literature, which suggests that as children grow, their language skills, theory of mind, and self-concept also improve, leading to the use of higher subjective perspectives (Nelson & Fivush, 2004). Similarly, McKeough et al. (2008) found that older children are more capable of expressing mental states and emotions. It was also found that mothers with higher ages of memory reported higher ages of memory in their children. This finding was unexpected and consistent throughout the study. Studies show that children in collectivist cultures often have later first memories when compared to children in individualistic societies. In Western/Individualistic cultures, parents tend to be more elaborative in their reminiscing styles in memory narratives with an emphasis on the child's thoughts and feelings. This promotes earlier and more detailed autobiographical memories.

In contrast, in collectivist cultures, parents tend to focus on social norms, child behavior, and teaching lessons using a more directive and repetitive narrative style. This focus may limit the emotional content in children's memory narratives, providing fewer opportunities for children to form personal narratives, which is crucial for the development of autobiographical memory. These are likely to result in later memory emergence (Fivush & Nelson, 2004; Wang & Fivush, 2005). Mothers in this study are from a collectivist society, and it could be implied that they and their children are likely to have later reported memory narratives.

Masculinity was linked to earlier ages in terms of reported memory, with this effect being more significant for younger children. This suggests that masculine traits, such as independence and autonomy, may promote memory development in early childhood. This aligns with existing literature indicating that agentic characteristics support memory accessibility (Wand, 2006). However, with age, this ability appears to diminishes. As children age, their cognitive and narrative skills develop, and the influence of gender traits may level out.

In middle school, results showed that higher use of maternal subjective perspectives predicted higher use of subjective perspectives in children. These findings align with the literature, which suggests that elaborative and emotionally expressive maternal reminiscing fosters rich emotional and cognitive development in children (Fivush et

al. 2006), leading to a higher use of subjective perspectives in narratives. Also, as children's age increased, so did the age at which children recalled their happy memories. These findings were also similar among high school students. This contradicts most existing literature, which usually suggests that the age of earliest memories increases across middle childhood (Peterson et al., 2005) and that higher subjective perspective use is linked with earlier autobiographical memories (Wang, 2006). The study findings suggest that as children mature, they remember more recent events, particularly those that are emotionally meaningful.

When examining child gender, we observe that girls tend to use more subjective perspectives and report higher ages in their happy memories. These findings support the majority of the existing literature on autobiographical memory development. Girls tend to recall more detailed and emotional memories and tend to use more internal state language when compared to boys (Zaman & Fivush, 2013). Finally, a finding from previous sections was once again confirmed. Higher masculine qualities in children predicted higher subjective perspectives use as children age.

Converging results from the maternal model show that child age and gender are primary factors in influencing the use of subjective perspectives in children. As children get older, both the use of subjective perspectives and the age of memory recall appear to increase. One possible explanation is that emotional and cognitive language development is strongly influenced by developmental and cognitive maturation. Additionally, girls were found to have a higher use of subjective perspectives and recall earlier memories when compared to boys. It is plausible that parents talk to their daughters more than their sons; therefore, girls use more elaborate language. Finally, maternal use of subjective perspectives in middle school had an impact on child use of subjective perspectives. Neither maternal masculinity nor femininity had an impact on any of the outcome variables. It is possible that maternal modeling and support during the transition between elementary and middle school are critical in helping children navigate more complex social experiences and in shaping identity development.

It was hypothesized that high maternal masculinity and femininity would have a positive impact on the use of subjective perspectives in autobiographical memories in

children, more specifically in daughters. However, this was not the case. Only higher child masculinity appeared to have an impact on the use of subjective perspectives.

4.3.1.2. Child Model

According to the child model, similar results emerged: higher child masculinity predicted higher subjective perspective use in happy memories in elementary school. As child age increased, so did the use of subjective perspectives and the age reported for memory recall. Finally, once again, the interaction between child masculinity and age predicted higher use of subjective perspectives as children get older; however this time another factor is found to be significant in which the interaction between child femininity and age predicted the use of subjective perspective; indicating that as age increases the relationship between child femininity and use of subjective perspectives appears to become weaker. Once again, the findings highlight the importance of developing more autonomous qualities in children at younger ages.

In middle school, once again, child masculinity, age, and maternal use of subjective perspectives were positive predictors of subjective perspectives use in children. However, a contradictory finding was seen in the interaction between masculinity and age. It predicted lower use of subjective perspectives in children as they got older. Throughout the study, findings suggested a greater relationship between child masculinity and the use of subjective perspectives. However, in happy memories, especially in middle school, there was a decreased relationship between masculine qualities and the use of subjective perspectives. One explanation that comes to mind is the comparison of gender role traits in middle school to those in other grade levels. Research shows that girls and boys reach a peak usually in the 6th and 7th grade, where they are likely to show the most significant level of masculinity and femininity. Girls tend to exhibit the most feminine qualities, while boys tend to exhibit the most masculine qualities. It has been established that as children age, their cognitive and emotional abilities mature, allowing them to use more subjective perspectives in their memory narratives (Fivush, 2011). However, during adolescence, societal pressure to conform to gender roles often increases and intensifies (Hill & Lynch, 1983). For children who are expected to present traditional

masculinity at this age, this may mean suppressing and/or avoiding emotional language. Traditional masculine norms emphasize traits such as emotional restraint and toughness (Addis & Mahalik, 2003). Therefore, children in middle school who try to fit these expectations may be less willing to reflect on and share their emotions in memory narratives

Finally, in high school, girls used fewer subjective perspectives and reported higher ages in memory recall. As children's age increased, so did their age in memory recall. Finally, there was a marginal positive impact of child femininity on the child's reported age of memory recall. Previously, it was mentioned that having feminine traits predicted greater emotional content and elaborative details in memory narratives. In contrast, individuals with masculine traits showed less emotional expression and more agency in their memories (Grysman et al., 2016); however, these findings suggest that agency overlaps with personal reflections, such as describing goals and motivations and providing internal reasoning for those goals. This would explain why high masculinity, regardless of gender, predicts higher use of subjective perspectives. According to the gender schema theory, individuals typically internalize gender traits into a self-schema. This could transfer to these findings. An individual who is high in femininity may have more emotional references; however, they may not be able to express them openly and directly. Therefore, this finding suggests that an individual high in masculinity may produce narratives easily and focus on reasoning. A recent study also suggests that gender identity, specifically masculinity, appear to predict reflective cognitive style. For example, individuals high in masculinity tend to perform better on cognitive reflection tests, indicating a greater capacity to engage in internal evaluation (Plotkina et al., 2024) -skills necessary for the use of subjective perspectives. Another study suggests that adolescents develop more egalitarian gender-role attitudes —a time when masculine traits may be integrated with feminine traits to express and reflect narratives (Ullrich et al., 2022). This also relates to the previously unexpected finding that girls used fewer subjective perspectives in high school when compared to boys.

Converging results for the child model portray a pattern that closely resembles the regression analyses. While maternal masculinity played a primary role in child

gender development, here we see that child masculinity appears to play a significant role in the use of subjective perspectives in children. One possible explanation is that masculine qualities like independence and assertiveness in children tend to promote the use of emotional and cognitive language skills. Results resemble the maternal model in that child age and gender are the primary factors in impacting the child's use of subjective perspectives. Maternal use of subjective perspectives had an impact on child use of subjective perspectives only at the middle school level. Finally, neither maternal masculinity nor femininity had an impact on the outcome variables. It is plausible that more so than maternal gender role traits, maternal modeling and support during the middle school years remain influential in perspective taking in adolescence.

4.3.2. Sad Memories

4.3.2.1. Maternal Model

According to the maternal model, significant results replicated those of the happy memory condition: girls in elementary school and middle school showed a higher use of subjective perspectives in sad memories, and with increasing age, the reported age of memory recall also increased—the middle school level presented with more significant results. Maternal femininity was associated with a higher reported age of memory. Maternal use of subjective perspectives positively predicted the use of subjective perspectives in children.

At the high school level, lower maternal femininity was associated with higher use of subjective perspectives in children. It could be implied and previously confirmed with the results that maternal masculinity appears to have a greater impact on the use of subjective perspectives in children. Additionally, maternal language appears to have a greater impact on child language, as seen in the finding: higher maternal use of subjective perspectives predicted higher use of subjective perspectives in children. Finally, as children get older, higher levels of masculinity are associated with a greater use of subjective perspectives when recalling memories. As previously demonstrated, masculine traits—traits that promote independence, autonomy, and

confidence —may support the construction of coherent narratives as children age (Fivush & Zaman, 2014).

Additionally, as mentioned earlier, children's reported ages of memory also increase as they grow older. This could indicate that higher masculinity focuses more on goal-oriented achievement-based memories, which are encoded later than emotional events, often characterized by feminine traits. The interaction between child masculinity and gender had a negative impact on the use of subjective perspectives, and the interaction between child femininity and gender had a marginal positive impact on the use of subjective perspectives in children. These two interaction effects show that gender-role traits appear to affect girls and boys differently when it comes to expressing subjective perspectives in autobiographical narratives. These findings suggest that masculinity is more strongly associated with subjective perspective use in girls than in boys. In other words, girls with higher masculine traits used more subjective perspectives than less masculine girls and more so than boys. This gender pattern is different from what was expected. Some studies suggest that masculine traits can enhance self-expression, particularly in women, and integrating these traits into narratives supports identity exploration and narrative elaboration (Helgeson, 1994; McLean & Pasupathi, 2012; Singer & Blagov, 2004). Another significant finding complements the previous one: that femininity predicts higher subjective perspective use for boys than for girls. In other words, as femininity increases, boys' use of subjective perspectives in memory narratives tends to increase as well. Research demonstrates that "typical" feminine characteristics in autobiographical memories predict increased emotional expression in narratives (Grysman et al., 2016). Therefore, boys with stronger feminine qualities may incorporate emotional and reflective elements into their memory narratives. As stated before, the integration of both masculine and feminine traits fosters narrative identity development (McAdams, 2001; Mclean & Pasupathi, 2012). Therefore, the addition of feminine traits in boys may promote self-expression that traditional masculine norms might otherwise limit.

Converging results resemble the happy memory condition for the maternal model. Once again, child age and gender appear to be the primary factors in impacting the

use of subjective perspectives and the age of memory recall. Girls may be spoken to in a more elaborative style; therefore, increasing their internal-state language skills more so than boys, which would mean that they can recall earlier memories due to the emotional importance given to memories. One difference between the maternal happy model and the maternal sad model is that child masculinity did not have an impact on the use of subjective perspectives and age of memory recall until high school in the sad memory model. Also, maternal use of subjective perspectives had an impact on child use of subjective perspectives, not only in the middle school group but also in the high school group. One possible explanation for these results is that, more so than gender role traits, in sad memories, the influence of maternal modeling may extend longer into adolescence, as these emotionally charged events may increase the need for maternal support compared to more positive memory narratives. Finally, the only maternal gender role trait that seem to have impacted child use of subjective perspectives was maternal femininity. Mothers with higher femininity predicted lower use of subjective perspectives in the high school group for sad memories. One possible explanation for this is that adolescents may respond differently to maternal femininity in negative memories, perceiving higher empathy and emotional expressiveness as limiting their own independent perspective-taking.

4.3.2.2. Child Model

The findings from the child model for the sad memory condition provide several insights into the development of subjective perspectives and the age of reported memory in children. First, consistent with the literature, child age positively predicted the use of subjective perspectives (Fivush et al., 2003) in elementary and middle schools. This indicates that as children mature, their ability to reflect on internal states and narrate emotionally negative experiences with greater depth appear to improve. Additionally, girls demonstrated higher use of subjective perspectives compared to boys in both elementary and middle school, which aligns with existing gender socialization research indicating that girls are often encouraged to be more emotionally expressive and introspective (Buckner & Fivush, 2000; Zaman & Fivush, 2013).

Notably, maternal use of subjective perspectives was a significant predictor of children's use of subjective perspectives in both middle school and high school, highlighting the influential roles of maternal scaffolding during emotionally charged conversations (Reese, 2010; Wang, 2001). Interestingly, in high school, children's masculinity was associated with a higher use of subjective perspectives—a pattern that deviates from traditional gender expectations but may reflect increasing flexibility in how masculine traits are integrated with emotional expression during adolescence (Bem, 1981; Markstrom-Adams, 1989). Child age predicted child age of memory across all school levels. This implies that as children age, the age of reported memory also tends to increase. Additionally, at the high school level, interaction effects revealed similar findings to those of the maternal model: that the combination of child masculinity and gender had a marginally negative impact on the use of subjective perspectives in children, while the interaction between child femininity and gender had a positive impact. These findings suggest that gender-role traits may have different implications depending on the child's gender and the emotional valence of memory narratives. Once again, girls with higher masculine traits used more subjective perspectives than less masculine girls, and more so than boys, and as femininity increases, boys' use of subjective perspectives in memory narratives increases as well. As previously noted, higher masculinity in girls and higher femininity in boys appear to be a significant factor in developing expressiveness in memory narratives.

Converging results show that, similarly to the child model in happy memories, child age and gender predict higher use of subjective perspectives in children and the age of memory recall. Once again, displaying that with cognitive development comes higher emotional cognitive language ability, especially for girls. Similar to the maternal model in sad memories, maternal use of subjective perspectives was once again influential at the middle school and high school levels; the influence of maternal modeling may extend longer into adolescence, as these emotionally charged events may increase the need for maternal support compared to more positive memory narratives. Child masculinity appeared to be a critical factor in high school in sad memories, as it increased, so did the use of subjective perspectives in children, more specifically in girls. Child femininity also came into play, in which higher child

femininity predicted higher subjective perspectives in boys than in girls. Girls drawing on more masculine qualities, while boys draw on more feminine qualities, appears to portray a complex dynamic practice in order to present emotional cognitive language. One possible explanation for this is that as children get older, gender-role traits tend to become more flexible, where nontraditional styles support richer narrative expression in emotionally charged events.

These path analyses were conducted in order to address the second and third hypotheses of this study: that high maternal masculinity and femininity will have a positive impact on the use of subjective perspectives in autobiographical memories in children, more specifically on daughters, and that maternal masculinity and femininity will predict an earlier age of memories in children. Findings demonstrated that maternal masculinity and femininity did not have a noteworthy role as originally hypothesized. Child age, gender, and maternal use of subjective perspectives appeared to be the most influential factors in the use of subjective perspectives in children's memory narratives.

4.4. Path Analysis between Time 1 and Time 2

This study was a longitudinal investigation examining how maternal and child gender-role characteristics, as well as the use of subjective perspectives, are impacted across developmental periods in the context of happy and sad memories. Two separate structural equation models were conducted to examine the relationships between Time 1 variables and Time 2 variables, stratified by school level.

4.4.1. Happy Memories

In elementary school, maternal use of subjective perspectives was shown to be stable over time, aligning with literature demonstrating consistency in maternal reminiscing styles (Reese et al., 2010). Child femininity was found to marginally negatively predict the use of subjective perspectives in Time 2. This finding may seem counterintuitive given that previous research has consistently associated femininity and the female gender with higher emotional elaboration in narratives (Fivush, 1998;

Zaman & Fivush, 2013). However, this result is in line with other findings in this study. Maternal femininity was also associated with lower subjective perspectives use in children. This unexpected finding is important to discuss as this study finds that femininity seems to not have the expected impact in the use of subjective perspectives in Türkiye. There could be a few explanations for this. First, this may be due to the content in memory narratives. Feminine traits often involve prioritizing others' needs and emotions and social relatedness over one's own emotions (Eagly & Wood, 2012; Fivush & Zaman, 2015), which would mean that memory narratives lack personal details. This could also be due to the cultural norms and gender role socialization. In Türkiye, strong cultural norms regarding gender roles may shape how mothers with high levels of femininity interact with their children. Such mothers may exhibit traditionally feminine behaviors-such as nurturing, providing emotional comfort, and displaying care- yet these behaviors do not necessarily translate into more enriched cognitive or linguistic interactions. Emotional expressiveness might be valued, but conversations involving mental-state terms may not be emphasized or modeled in daily conversations. Furthermore, emotional socialization does not always imply cognitive elaboration. Mothers may focus on emotional comfort or expression without actively scaffolding cognitive processes. Another contributing factor may be maternal education, which has been shown to predict children's emotional and cognitive language. Even if mothers identify strongly with feminine traits, limited educational background or resources may restrict their use of elaborated emotional and cognitive language.

In middle school, child femininity in Time 1 again negatively predicted maternal use of subjective perspectives in Time 2. The mutual prediction between maternal and child use of subjective perspectives over time supports the bidirectional nature of autobiographical memory development (Fivush & Nelson, 2004). Maternal and child subjective perspectives used in Time 1 were once again consistent throughout Time 2. Finally, maternal use of subjective perspectives in Time 1 impacted the use of subjective perspectives in children in Time 2 and vice versa. Consistent with prior evidence that parent-child reminiscing is a collaborative and reciprocal process (Wang, 2001). At the high school level, the interaction between child masculinity and age positively predicted children's use of subjective perspectives in Time 2. This

indicates that as adolescents mature, masculine traits such as self-assurance or independence tend to facilitate a more reflective integration of personally meaningful events, especially when these events are positive (Eisenberg et al., 2001). An unexpected and contradictory result to that of what this study has been finding so far is the positive impact of the interaction between child masculinity and child gender on the use of subjective perspectives. This finding suggests that a masculine identity may enhance the use of a subjective perspective more for boys than for girls, particularly in the context of happy memories. This finding is more in line with the literature than all of the other findings that demonstrate that boys' narrative elaboration is more dependent upon gender-typed traits than girls' (Fivush & Buckner, 2003). Boys with higher masculine traits —especially in happy memories —may be encouraged to tell self-focused narratives that incorporate personal interpretations of memories (McAdams, 2001). This suggests that for boys, masculine traits are likely to facilitate the development of more evaluative and rich memory narratives, particularly in happy memories. These findings suggest that the impact of gender-role traits on memory narratives appear to be more complex and interactive during adolescence.

Converging findings indicate that, over two time points, the child's feminine qualities appear to negatively impact the mother's emotional and cognitive language. Additionally, there is a reciprocal relationship where both the child's and the mother's emotional and cognitive language impact one another. A possible explanation for this is that just as mothers impact their children, children are also likely to affect their mothers. Another plausible explanation is that, over time, mothers tend to adjust their language to align with their child's development. In high school, the child's masculinity becomes significant, once again confirming our findings that masculine qualities are likely to enhance emotional and cognitive language.

4.4.2. Sad Memories

In contrast, the findings from sad memories reflect a different pattern of gendered emotional expression. In elementary school, child femininity negatively predicted maternal use of subjective perspectives, while child masculinity negatively predicted

the child's use of subjective perspectives and positively predicted maternal use of subjective perspectives. These findings support the idea that children's gender role orientations may shape maternal responsiveness and reminiscing behavior, particularly in emotionally negative contexts (Fivush, 1998; Reese & Fivush, 2008). Masculinity, often associated with emotional suppression, may inhibit emotional expressiveness in sad narratives (Chaplin & Aldao, 2013), whereas maternal figures may respond to these traits with increased scaffolding or elaboration. Furthermore, girls were found to use more subjective perspectives than boys, consistent with robust evidence of gender differences in emotional expressiveness and narrative elaboration (Bauer, 2007; Zaman & Fivush, 2013). These early differences highlight the significance of both gender identity and parental modeling in shaping the development of autobiographical memory.

In middle school, maternal and child use of subjective perspectives in Time 1 was a positive predictor of their use of subjective perspectives in Time 2. More importantly, maternal use also predicted child use of subjective perspectives, reaffirming the influence of maternal reminiscing style during early adolescence. This is consistent with studies showing that maternal elaboration continues to play a pivotal role in shaping narrative coherence and emotional processing (Reese et al., 2010).

In high school, the use of subjective perspectives by maternal and child continued to show stability. However, this time, the interaction between child masculinity and gender negatively impacted the use of subjective perspectives in children. Similar to findings from before, it suggests that masculinity appears to be more strongly associated with subjective perspective use in girls than in boys. In other words, girls with higher masculine traits used more subjective perspectives than less masculine girls and more so than boys in sad memories. These findings collectively demonstrate that gender-role traits are likely to influence the development of autobiographical memory in a differentiated manner across emotional memory narratives and developmental periods. Moreover, the interpersonal dynamics between mothers and children, particularly in terms of subjective perspectives,

highlight the bidirectionality and socially constructed nature of autobiographical memories.

Converging findings highlighted the importance of the child's age, gender, and gender-role traits in their use of subjective perspectives. Child feminine qualities negatively impacted maternal emotional and cognitive language. In contrast, child masculinity in the sad context had a positive impact on maternal emotional and cognitive language as well as their own. Confirming the explanation that language appears to have a reciprocal nature between mother and child. Once again, maternal language had an impact on child language context starting from the middle school level and extending into the high school level, confirming the influence of maternal modeling and how it may extend longer into adolescence, as these emotionally charged events may increase the need for maternal support compared to more positive memory narratives. On a final note, girls had a higher use of emotional and cognitive language, especially those with higher masculine qualities, indicating that qualities like assertiveness and independence appear to promote optimal language context.

4.5. Discussion on Key Findings for Regression Analyses

This part of the thesis examines how demographic, maternal, and child-level factors influence the use of subjective perspectives and the age of memory in autobiographical memories across different developmental stages.

4.5.1. Subjective Perspectives

The analyses revealed a consistent finding: children's prior use of subjective perspectives (Time 1) was the strongest predictor of their future use (Time 2), aligning with previous research on the stability of narrative style across time (Fivush et al., 2006; Wang, 2001). In elementary school, children from suburban areas exhibited lower use of subjective perspectives in their happy memory narratives compared to those from urban areas. This aligns with research suggesting that urban environments may offer richer socialization experiences with diverse emotional

expressions, fostering the development of more elaborate narrative styles (Peterson et al., 2011; Reese & Newcombe, 2007).

Furthermore, girls had higher subjective perspective use in sad memories both in middle school and high school. Maternal influences were also evident across models. Maternal education, urban residency, and maternal use of subjective perspectives had an impact on child use of subjective perspectives. Once again, these findings support sociocultural theories of memory development, which suggest that children's narrative and emotional development is likely shaped by the quality and style of maternal reminiscing (Reese et al., 2010; Wang, 2007). Mothers with higher educational levels and those who lived in urban areas were more likely to engage in elaborative and reflective conversations, providing more scaffolding that promotes better emotional awareness (Göz et al., 2016; Liable et al., 2013; Reese et al., 1993; Reese & Newcombe, 2007).

Converging results present more meaningful outcomes in the sad memory context, where girls portray higher emotional and cognitive language abilities. One possible explanation is that adverse events tend to provide more opportunities to discuss narratives where girls are more socialized to process these experiences more openly than boys (Fivush et al., 2009). Mothers tend to encourage their daughters to explore emotions in greater depth, thereby promoting more advanced emotional and cognitive language skills (Reese et al., 2010). Maternal education and maternal emotional and cognitive language use positively impacted child language. Mothers with higher educational attainment are likely in contact with greater resources and linguistic opportunities, which they then appear to transmit and model to their children (Melzi et al., 2011; Rowe, 2008).

4.5.2. Age of Memory Recall

Concerning the reported age of memory, children's previously reported age of memory (Time 1) significantly predicted their current reported age of memory (Time 2), indicating temporal consistency in autobiographical memories. Children living in urban areas reported higher ages of memory. A finding that is contradictory to that of

the current literature. Studies demonstrate that children in urban settings tend to recall earlier and more detailed events when compared to rural children (Göz et al., 2016). It was mentioned earlier that collectivist and individualistic societies change in the ages of their earliest memories. It could be implied that urban residences have become areas that seem to promote individualistic lifestyles, thereby creating memories that recall earlier events, in contrast to suburban areas that still tend to promote collectivist lifestyles and possible later events in memory narratives.

Interestingly, gender-role traits showed differentiated associations in sad memories in the middle school group. Higher maternal femininity was associated with higher reported ages of memory in children. In high school, lower masculinity predicted higher ages in memory recall in sad memories. This finding may align with previous research on how higher femininity in children is associated with a decrease in the use of subjective perspectives. It was suggested that highly feminine children might be more focused on others' emotions rather than their own when recalling events (Fivush & Zaman, 2014), implying that this lack of a personal narrative may be a reason for the later formation of memories.

Converging findings show the importance of geographical region, maternal education, and maternal gender-role traits on the age of reported memory. Urban areas, higher maternal educational attainment, and maternal femininity predicted later ages of memory, whereas maternal masculinity predicted earlier ages of memory. As mentioned before, urban areas and maternal educational attainment might mean that mothers have greater linguistic resources that they then transmit to their children. One speculation on how gender-role traits impact the age of reported memory is that having feminine qualities does not necessarily indicate earlier memories. Individual differences in children who present with higher expressive ability and confidence might support them in organizing and assessing memories from earlier ages.

4.6. Limitations and Future Directions

This thesis has several limitations. First, although self-report measures are frequently used in psychological research, they can affect the validity and reliability of the

findings due to potential social desirability bias. Participants may respond in ways they believe are socially acceptable, rather than reflecting their true feelings or behaviors, particularly girls. If the memory task was perceived as evaluative, highly feminine girls may have been more concerned with telling a "socially acceptable" story rather than revealing their internal perspective, which could have led to a lower use of subjective perspectives (McLean & Breen, 2009).

Second, the use of written narratives for qualitative data collection, while valuable, carries inherent limitations. Data were collected from mothers and children in written form via technological devices that also included numerous other questionnaires. The entire data collection process took approximately one to two hours per participant. Although this method allowed for large-scale data collection, it may have resulted in narratives with limited depth and elaboration. Prior to the COVID-19 pandemic, when data collection for autobiographical memories was conducted in person, it was observed that mothers were reluctant to have their voices recorded. As a result, the use of written responses was adopted. However, writing may feel more impersonal than verbal sharing and could result in less emotionally expressive narratives or the omission of emotional tone. Furthermore, despite the randomization of the questionnaire order in this study, participant fatigue or disengagement by the time they reached the autobiographical memory questionnaire may have contributed to rushed, incomplete, or less detailed responses for some. Moreover, mothers completed the forms at home without access to researchers for clarification, whereas the children completed them in school with the assistance of researchers. Future research could benefit from collecting data in person, without multiple questionnaires administered simultaneously, to encourage more thorough and elaborative narratives.

Third, the elementary school sample was smaller than the middle and high school groups, which may have influenced the results. Additionally, younger children may not have fully comprehended the task or instructions, sometimes providing only one-sentence memories without elaboration. A further limitation involves the coding method used for subjective perspectives. While this approach includes both cognitive and emotional language-an advantage given its novelty-it limits the ability to determine whether high levels of masculinity in children predict greater use of

emotional tone, cognitive tone, or both. Specifically, the use of subjective perspectives coding combines cognitive and emotional words into a single construct rather than examining them as distinct dimensions. Therefore, when children exhibit a high frequency of subjective perspectives use in their memories, it remains unclear whether this reflects increased cognitive content, emotional content, or a combination of the two. Given that the results revealed an association between masculinity and subjective perspectives use, future research could consider separating these components to clarify whether this relationship is driven by cognitive, emotional, or integrated narrative styles.

Finally, cultural context is an important consideration. Future research should examine diverse cultural samples, comparing collectivist and individualistic societies to gain a deeper understanding of these cultural differences. In general, individualistic cultures tend to produce longer, more detailed, and emotionally rich narratives with greater emphasis on subjective perspectives, whereas collectivist cultures produce shorter, less emotionally intense, and more objective narratives (Fivush & Wang, 2005; Wang, 2001; Wang & Ross, 2007). On a final note, incorporating fathers into future studies would broaden understanding of how paternal gender-role traits influence child gender-role traits and children's use of subjective perspectives.

4.7. Strengths, Contributions to the Literature, and Implications

This study includes many notable strengths. First, the data were drawn from a nationwide sample in Türkiye, encompassing 185 schools across 62 cities in 12 regions. Participants represented diverse socioeconomic backgrounds, family structures, and educational levels, enhancing the generalizability of findings to mothers and children in grades 3 through 11 in Türkiye. To the best of our knowledge this project is the first to obtain and analyze such a large sample of autobiographical memories. Second, the combination of quantitative and qualitative data collection methods enabled richer insights into the interplay between gender roles and autobiographical memory. Gathering qualitative data for memory narratives offered both measurable constructs and contextual depth. Third, the dyadic

design, which examined both mother and child memory narratives, offered a relational perspective into the transmission of gender roles in memory development. Fourth, the inclusion of children from elementary, middle, and high school levels enabled developmental comparisons, revealing how gender-role traits and memory recall change with age. Fifth, previously mentioned as possible limitation, the application of subjective perspectives coding could also be a strength, which combines cognitive and emotional language, capturing a different richness in autobiographical memories —a previously underexplored yet psychologically meaningful dimension.

Sixth, focusing on gender-role traits rather than gender itself offered a distinctive perspective that challenges binary conceptions of masculinity and femininity, illustrating that these traits can coexist within individuals. Finally, data collection procedures that allowed mothers to use preferred technological devices and children to use school tablets mirrored naturalistic settings, potentially reducing performance anxiety. This study adds to the theories that challenge the binary view of gender traits: that masculinity and femininity can coexist in individuals.

The findings carry several implications and provide directions for parental guidance, educational practice, and intervention efforts aimed at fostering richer narrative and emotional development across genders. They underscore that, regardless of gender role traits, maternal use of subjective perspectives influences children's narrative style. Elaborative language use by mothers are critical to fostering children's narrative development. Interventions and parent-education programs could be developed to encourage narrative tasks that promote subjective perspectives and elaborative speaking styles. Parents can be taught and encouraged to engage in elaborative reminiscing practices, using open-ended questions and emotional-cognitive language to support the development of children's narrative skills, regardless of gender. On that note, because maternal masculinity is associated with higher emotional-cognitive language development for girls, while at times maternal femininity sometimes supports boys' emotional expression, guidance should emphasize the benefits of modeling a balance of both masculine and feminine traits, especially for boys.

In educational settings, narrative-based activities such as storytelling, journaling, and peer memory sharing can be used to promote children's use of subjective perspectives. Teachers can provide scaffolding that encourages both boys and girls to express themselves creatively. On a school-wide level, social-emotional programs may highlight the complementary role of being both assertive and empathetic towards others when communicating thoughts and behaviors (Denham & Brown, 2010). Furthermore, findings imply a potential peak in gender role expression from elementary school to middle school, indicating that targeted interventions at this important stage may be particularly effective.

Educational policy and laws could address national/regional curricula to incorporate social-emotional learning in schools. Policy frameworks could be developed that prioritize standardized test scores *and* holistic development. Teachers could be trained to implement a certain level of all-inclusive social-emotional learning in classrooms. Finally, educational policies often differ based on urban and rural locations, delivering different resources and opportunities for each. Offering mothers in suburban areas the opportunity to receive an education, and the distribution of extra resources can indirectly affect children’s narrative and emotional development.

This study highlights the influence of maternal and child gender-role traits on the development of autobiographical memories in children. The findings contribute an alternative and intricate understanding of gender-role development, demonstrating that mothers' masculine and feminine traits can coexist and jointly foster child gender-role traits and, in turn, impact the development of autobiographical memories in their children. By bridging research on gender development and autobiographical memory, this work reveals the subtle yet meaningful ways gendered parenting shapes how children construct and recall personal experiences. Recognizing this complexity can guide educators and parents in supporting flexible gender expression while cultivating elaborate and robust memory skills.

REFERENCES

Abele, A. E. (2003). The dynamics of masculine-agentic and feminine-communal traits: Findings from a prospective study. *Journal of Personality and Social Psychology, 85*(4), 768–776. https://doi.org/10.1037/0022-3514.85.4.768

Abele, A. E., & Wojciszke, B. (2007). Agency and communion from the perspective of self versus others. *Journal of Personality and Social Psychology, 93*(5), 751–763. https://doi.org/10.1037/0022-3514.93.5.751

Addis, M. E., & Mahalik, J. R. (2003). Men, masculinity, and the contexts of help seeking. *American Psychologist, 58*(1), 5–14.

Alea, N., & Bluck, S. (2003). Why are you telling me that? A conceptual model of the social function of autobiographical memory, *Memory, 11*(2), 165–178. https://doi.org/10.1080/741938207

Aylaz, R., Çoban, A., Kaya, N., & Kılınç, G. (2014). [Study on parental education and gender roles]. *Unpublished manuscript.*

Bakan, D. (1966*). The duality of human existence*. Chicago: Rand McNally.

Bandura, A. (1977). *Social learning theory*. Prentice-Hall.

Bauer, P. J. (2007). Remembering the times of our lives: Memory in infancy and beyond. Lawrence Erlbaum Associates.

Bauer, P. J., & Larkina, M. (2014). *Realizing relevance: The influence of domain-specific knowledge on the development of event memory and future thinking, Memory, 22*(8), 907–924. https://doi.org/10.1080/09658211.2013.839742

Bauer, P.J., Stennes, L., Haight, J.C. (2003). Representation of the inner self in autobiography: Women's and men's use of internal states language in personal narrative. *Memory, 11***,** 27–42.

Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology, 42*(2), 155–162. https://doi.org/10.1037/h0036215

Bem, S. L. (1975). *Sex role adaptability: One consequence of psychological androgyny.* Journal of Personality and Social Psychology, 31(4), 634–643. https://doi.org/10.1037/h0077098

Bem, S. L. (1981). Gender schema theory: A cognitive account of sex typing. *Psychological Review, 88*(4), 354–364. https://doi.org/10.1037/0033-295X.88.4.354

Berk, L. E. (2010). *Development through the lifespan* (5th ed.). Pearson Education.

Bieg, M., Reindl, M., Gniewosz, B., & Spinath, B**.** (2022). Benefits of psychological androgyny in adolescence: The role of gender role self-concept in school-related well-being. *Frontiers in Psychology, 13*, https://doi.org/10.3389/fpsyg.2022.856758

Bluck, S., & Alea, N. (2002). Exploring the functions of autobiographical memory: Why do I remember the autumn? In J. D. Webster & B. K. Haight (Eds.), *Critical advances in reminiscence work* (pp. 61–75). Springer.

Bornstein, M. H., & Putnick, D. L. (2012). Cognitive and socioemotional caregiving in developing countries. *Child Development, 83*(1), 46–61. https://doi.org/10.1111/j.1467-8624.2011.01673.x

Bosacki, S. L. (2013). *The social cognition of children and adolescents: A cultural approach*. Psychology Press.

Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research perspectives. *Developmental Psychology, 22*(6), 723–742.

Buckner, J. P., & Fivush, R. (2000). Gendered themes in family reminiscing. *Memory, 8*(6), 401–412. https://doi.org/10.1080/09658210050156889

Bussey, K., & Bandura, A. (1984). Influence of gender constancy and social power on sex-linked modeling. *Journal of Personality and Social Psychology, 47*(6), 1292-1302. https://psycnet.apa.org/doi/10.1037/0022-3514.47.6.1292

Bussey, K., & Bandura, A. (1999). Social cognitive theory of gender development and differentiation. *Psychological Review, 106*(4), 676–713. https://doi.org/10.1037/0033-295X.106.4.676

Conway, M. A., & Pleydell-Pearce, C. W. (2000). The construction of autobiographical memories in the self-memory system. *Psychological Review, 107*(2), 261–288. https://doi.org/10.1037/0033-295X.107.2.261

Chaplin, T. M., & Aldao, A. (2013). Gender differences in emotion expression in children: A meta-analytic review. *Psychological Bulletin, 139*(4), 735–765.

Çetinkaya, Ş. (2013). [Paternal education and children's gender role development]. *Unpublished manuscript.*

Dittman, C.K., Sprajcer, M. & Turley, E.L. (2023). Revisiting gendered parenting of adolescents: understanding its effects on psychosocial development. *Current Psychology,* 42, 24569–24581. https://doi.org/10.1007/s12144-022-03536-7

Eagly, A. H., & Wood, W. (2012). Social role theory. In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of Theories of Social Psychology*, 2, 458–476. Sage.

Eisenberg, N., Cumberland, A., & Spinrad, T. L. (2001). Parental socialization of emotion. *Psychological Inquiry, 12*(2), 86–92. https://doi.org/10.1207/S15327965PLI1202_01

Endendijk, J, J., Groeneveld, M. G., & Mesman, J. (2018). The Gendered Family Process Model: An Integrative Framework of Gender in the Family. *Archives of Sexual Behavior*, 47(4), 877-904. https://doi:10.1007/s10508-018-1185-8.

Endendijk, J. J., Groeneveld, M. G., Van Berkel, S. R., Hallers-Haalboom, E. T., Mesman, J., & Bakermans-Kranenburg, M. J. (2016). Gendered parenting in early childhood: The differential effects of mothers' and fathers' caregiving behaviors on boys' and girls' behavioral outcomes. *Child Development, 87*(5), 1625–1640. https://doi.org/10.1111/cdev.12543

Endendijk, J. J., Groeneveld, M. G., van Berkel, S. R., Hallers-Haalboom, E. T., Mesman, J., & Bakermans-Kranenburg, M. J. (2018). Gendered parenting in early childhood: Subtle but significant. *Journal of Family Psychology, 32*(1), 5–14. https://doi.org/10.1037/fam0000330

Endendijk, J. J., Groeneveld, M. G., Mesman, J., & Van Aken, M. A. G. (2022). Revisiting gendered parenting of adolescents: Understanding its effects on psychosocial development. *Current Psychology, 41*(12), 8554–8566. https://doi.org/10.1007/s12144-022-03536-7

Fan, P. L., & Marini, M. M. (2000). Influences on gender-role attitudes during the transition to adulthood. *Social Science Research, 29*(2), 258–283.

Fivush, R. (1991). The social construction of personal narratives. *Merrill-Palmer Quarterly, 37*(1), 59–82.

Fivush, R. (1998). Gendered narratives: Elaboration, structure, and emotion in parent-child reminiscing across gender. *Research on Language and Social Interaction, 31*(1), 45–78

Fivush, R. (2007). Maternal reminiscing style and children's developing understanding of self and emotion. *Clinical Social Work Journal,* 35(1), 37–46. https://doi.org/10.1007/s10615-006-0065-1

Fivush, R. (2011). The development of autobiographical memory. *Annual Review of Psychology, 62*(1), 559–582. https://doi.org/10.1146/annurev.psych.121208.131702

Fivush, R., & Buckner, J. P. (2000). Gender, sadness, and depression: The development of emotional focus through gendered discourse. In A. H. Fischer (Ed.), *Gender and emotion: Social psychological perspectives* (pp. 232–253). Cambridge University Press. https://doi.org/10.1017/CBO9780511628191.012

Fivush, R., & Buckner, J. P. (2003). Creating gender and identity through autobiographical narratives. In R. Fivush & C. A. Haden (Eds.), *Autobiographical memory and the construction of a narrative self: Developmental and cultural perspectives* (pp. 149–167). Lawrence Erlbaum Associates.

Fivush, R., & Haden, C. A. (Eds.). (2003). *Autobiographical memory and the construction of a narrative self: Developmental and cultural perspectives.* Lawrence Erlbaum Associates Publishers.

Fivush, R., Haden, C. A., & Reese, E. (2006). Elaborating on elaborations: Role of maternal reminiscing style in cognitive and socioemotional development. *Child Development, 77*(6), 1568–1588. https://doi.org/10.1111/j.1467-8624.2006.00960.x

Fivush, R., & Sales, J. M. (2006). Coping, attachment, and mother–child reminiscing about stressful events. *Merrill-Palmer Quarterly, 52*(1), 125–150. https://doi.org/10.1353/mpq.2006.0003

Fivush, R., Berlin, L. J., Sales, J. M., Mennuti-Washburn, J., & Cassidy, J. (2003). Functions of parent-child reminiscing about emotionally negative events. *Memory, 11*(2), 179–192. https://doi.org/10.1080/741938209

Fivush, R., Marin, K., McWilliams, K., & Bohanek, J. (2009). Family reminiscing style: Parent gender and emotional focus in relation to child well-being. *Journal of Cognition and Development, 10*(3), 210–235. https://doi.org/10.1080/15248370903155866

Fivush, R., Marin, K., McWilliams, K., & Bohanek, J. G. (2011). Gender differences in parent–child emotion narratives. *Sex Roles, 64*(5–6), 305–317. https://doi.org/10.1007/s11199-010-9874-2

Fivush, R., & Wang, Q. (2005). Emotion talk in mother-child conversations of emotionally salient events: Exploring the cultural contexts of emotion regulation. *Child Development, 76*(6), 1320–1337.

Fivush, R., & Zaman, W. (2014). Gender, subjective perspective, and the development of autobiographical memory. *Memory*, 22(1), 44–56. https://doi.org/10.1080/09658211.2013.806554

Friedman, A., Pines, A. (1991). Sex differences in gender-related childhood memories. *Sex Roles, 25,* 25–32. https://doi.org/10.1007/BF00289314

Galambos, N. L., Berenbaum, S. A., & McHale, S. M. (2009). Gender development in adolescence. *Journal of Research on Adolescence*, 19(1), 53–68. https://doi.org/10.1111/j.1532-7795.2009.00500.x

Göz, İ. G., Çeven, Z. İ., & Tekcan, A. İ. (2016). Urban–rural differences in children's earliest memories. *Memory, 25*(2), 214–219. https://doi.org/10.1080/09658211.2016.1150490

Grysman, A., Fivush, R., Merrill, N. A., & Graci, M. (2016). The influence of gender and gender typicality on autobiographical memory across event types and age groups. *Memory & Cognition, 44*(6), 856-68. doi: 10.3758/s13421-016-0610-2.

Grysman, A., Merrill, N. A., & Fivush, R. (2016). Gender differences in autobiographical memory: Developmental and contextual considerations. *Applied Cognitive Psychology, 30*(2), 272–279. https://doi.org/10.1002/acp.3195

Grysman, A., Merrill, N., & Fivush, R. (2017). Gender differences in narrative coherence: Development and emotion regulation. *Journal of Cognition and Development, 18*(2), 210–230.

Grysman, A., Herrmann, S. D., & Denney, A. E. (2016). Gender identity predicts autobiographical memory phenomenology. *Applied Cognitive Psychology, 30*(2), 314–324. https://doi.org/10.1002/acp.3235

Habermas, T., & Bluck, S. (2000). Getting a life: The emergence of the life story in adolescence. *Psychological Bulletin, 126*(5), 748–769. https://doi.org/10.1037/0033-2909.126.5.748

Habermas, T., & Reese, E. (2015). Getting a life: The emergence of the life story in adolescence. *Psychological Bulletin, 141*(3), 747–773. https://doi.org/10.1037/a0039321

Helgeson, V. S. (1994). Relation of agency and communion to well-being: Evidence and potential explanations. *Psychological Bulletin, 116*(3), 412–428. https://doi.org/10.1037/0033-2909.116.3.412

Hill, J. P., & Lynch, M. E. (1983). The intensification of gender-related role expectations during early adolescence. In Brooks-Gunn & Petersen (Eds.), *Girls at Puberty*, 201–228.

Howe, M. L., Courage, M. L., & Edison, S. C. (2003). When autobiographical memory begins. *Developmental Review, 23*(4), 471–494.

Ilgaz, H., Altan, A., & Haşimoğlu-Ertaş, S. (2021). *Turkish mothers' use of complementation in storytelling*. *Dilbilim Araştırmaları Dergisi, 32*(3), 43-70. https://doi.org/10.18492/dad.762679

İmamoğlu, E. O. (1998). Individuation and relatedness: Not opposing but distinct and complementary. *Genetic, Social, and General Psychology Monographs, 124*(1), 77–103.

Jack, F., & Hayne, H. (2007). Eliciting adults' earliest memories: Does it matter how we ask the question? *Memory*, 15(6), 647–663. https://doi.org/10.1080/09658210701409924

Kagitçibaşi, Ç. (2007). *Family, Self, and Human Development across Cultures: Theory and Applications*. http://dx.doi.org/10.4324/9781315205281

Katz-Wise, S. L., Priess, H. A., Hyde, J. S. (2010). Gender-role attitudes and behavior across the transition to parenthood. Developmental Psychology, 46(1), 18-28. doi: 10.1037/a0017820.

Kenny, D. A., Kaniskan, B., & McCoach, D. B. (2015). The performance of RMSEA in models with small degrees of freedom. *Sociological Methods & Research, 44*(3), 486–507. https://doi.org/10.1177/0049124114543236

Kline, R. B. (2016). *Principles and practice of structural equation modeling* (4th ed.). Guilford Press.

Korlat, S., Holzer, J., Schultes, M. T., Bürger, S., Schober, B., Spiel, C., Kollmayer, M. (2022). Benefits of psychological androgyny in adolescence: The role of gender role self-concept in school-related well-being. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.856758

Laible, D., Panfile, T. (2009). Mother-child reminiscing in the context of secure attachment relationships: Lessons in understanding and coping with negative emotion. In: Quas J, Fivush R, editors. Emotion and Memory in Development: Biological, Cognitive, and Social Considerations. Oxford Series in Affective Science. Oxford, UK: Oxford University Press pp. 166–195.

Laible, D. , Panfile, T., Augustine, M. (2013). Predicting the quality of mother-child reminiscing surrounding negative emotional events at 42- and 48-Months. *Journal of Cognitive Development, 14*(2), 270-291. doi: 10.1080/15248372.2011.645972.

Lamb, M. E. (Ed.). (1987). *The father's role: Cross-cultural perspectives* (1st ed.). Routledge. https://doi.org/10.4324/9780203761526

Langley, H. A., Coffman, J. L., Ornstein, P. A. (2017). The socialization of children's memory: Linking maternal conversational style to the development of children's autobiographical and deliberate memory skills. *Journal of Cognitive Development, 18*(1), 63-86. doi: 10.1080/15248372.2015.1135800

Layton, R. L., & Smith, E. P. (2017). Parents as socialization agents: Gender development in context. *Journal of Family Psychology, 31*(3), 273–285.

Leaper, C. (2002). Parenting girls and boys. In M. H. Bornstein (Ed.), Handbook of parenting: Vol. 1. *Children and parenting* (2nd ed), pp. 189–225. Lawrence Erlbaum Associates.

Li, Y., Zhang, J., Li, J., Chen, Y., Zhang, J. & Zuo, M. (2024) The influence of parents on children's consciousness of gender equality: a multi-group structural equation modeling approach. *Frontiers in Psychology, 15*. doi: 10.3389/fpsyg.2024.1361281

Liben, L. S., & Bigler, R. S. (2002). The developmental course of gender differentiation: Conceptualizing, measuring, and evaluating constructs and pathways. *Monographs of the Society for Research in Child Development, 67*(2), 1–147. https://doi.org/10.1111/1540-5834.00225

Maccoby, E. E., & Martin, J. A. (1983). *Socialization in the context of the family: Parent-child interaction.* In P. H. Mussen (Ed.), *Handbook of child psychology* (Vol. 4, pp. 1–102). Wiley.

MacDonald, S., Uesiliana, K., Hayne, H. (2000). Cross-cultural and gender differences in childhood amnesia. *Memory 8*(6), 365-76. doi: 10.1080/09658210050156822.

Martin, C. L., & Ruble, D. N. (2004). Children's search for gender cues: Cognitive perspectives on gender development. *Current Directions in Psychological Science, 13*(2), 67–70. https://doi.org/10.1111/j.0963-7214.2004.00276.x

Markstrom-Adams, C. (1989). Gender differences in adolescent identity formation: A review of the literature. *Adolescence, 24*(96), 895–910.

McAdams, D.P. (2001). *The psychology of life stories*. Review of General Psychology. (Vol. 5, pp. 100–122).

McKeough, A., Bird, S., Tourigny, E., Romaine, A., & Graham, S. A. (2008). Narrative understanding and social skills development. *Early Education and Development, 19*(1), 85–106.

McLean, K. C., & Breen, A. V. (2009). Process and content of narrative identity development in adolescence: Gender and well-being. *Developmental Psychology, 45*(3), 702–710.

McLean, K. C., & Fournier, M. A. (2008). The content and processes of autobiographical reasoning in narrative identity. *Journal of Research in Personality, 42*(3), 527–545.

McLean, K. C., & Mansfield, C. D. (2011). *To find meaning in the experience: Meaning-making and identity in narrative*. Developmental Psychology, 47(3), 707–718.

McLean, K. C., Pasupathi, M., & Pals, J. L. (2007). Selves creating stories creating selves: A process model of self-development. *Personality and Social Psychology Review, 11*(3), 262–278. https://doi.org/10.1177/1088868307301034

McLean, K. C., & Pasupathi, M. (2012). Processes of identity development: Where I am and how I got there. *Identity: An International Journal of Theory and Research, 12*(1), 8–28. https://doi.org/10.1080/15283488.2011.632363

Melzi, G., Schick, A. R., & Kennedy, J. L. (2011). Narrative elaboration and participation: Two dimensions of maternal storytelling and their links to emergent literacy skills. *Early Education and Development, 22*(2), 234–260. https://doi.org/10.1080/10409289.2011.537562

Nelson, K., & Fivush, R. (2004). The emergence of autobiographical memory: A social cultural developmental theory. *Psychological Review, 111*(2), 486–511. https://doi.org/10.1037/0033-295X.111.2.486

Özbey, S., & Alisinanoğlu, F. (2009). An investigation into the relationship between preschool teachers' social gender roles and attitudes toward children's gender roles. *Procedia Social and Behavioral Sciences, 1*(1), 1558–1563.

Pascoe, C. J. (2007). *Dude, you're a fag: Masculinity and sexuality in high school*. University of California Press

Paul-Halpern, H., Perry-Jenkins M. (2016). Parents' gender ideology and gendered behavior as predictors of children's gender-role attitudes: A longitudinal exploration. *Sex Roles, 74*(11), 527-542. doi: 10.1007/s11199-015-0539-0.

Peterson, C., Grant, V., & Boland, L. (2011). Where and when: The role of setting and timing in children's memory. *Memory, 19*(7), 716–726. https://doi.org/10.1080/09658211.2011.613846

Perry, D. G., & Pauletti, R. E. (2011). Gender and adolescent development. *Journal of Research on Adolescence, 21*(1), 61–74. https://doi.org/10.1111/j.1532-7795.2010.00715.x

Pillemer, D. B. (2001). *Momentous events, vivid memories*. Harvard University Press.

Pleck, J. H. (1995). The gender role strain paradigm: An update. In R. F. Levant & W. S. Pollack (Eds.), *A new psychology of men* (pp. 11–32). Basic Books.

Plotkina, D., Hoffmann, A. O. I., Roger, P. D'Hondt, C. (2024). Gender vs. personality: The role of masculinity in explaining cognitive style, *Journal of Behavioral and Experimental Finance,44*. https://doi.org/10.1016/j.jbef.2024.100995.

Power, T. G. (2013). Parenting dimensions and styles: A brief history and recommendations for future research. *Child Development Perspectives, 7*(3), 168–175.

Putnick, D. L., Bornstein, M. H., Hendricks, C., Painter, K. M., Suwalsky, J. T. D., & Collins, W. A. (2012). Parenting stress, perceived parenting behaviors, and adolescents' adjustment in European American families. *Parenting: Science and Practice, 12*(4), 328–341.

Reese, E. (2009). The development of autobiographical memory: Origins and consequences. Advances in Child Development and Behavior, *Elsevier, 37*, 145-200. https://doi.org/10.1016/S0065-2407(09)03704-5

Reese, E., Haden, C. A., & Fivush, R. (1993). Mother–child conversations about the past: Relationships of style and memory over time. *Cognitive Development, 8*(4), 403–430. https://doi.org/10.1016/S0885-2014(05)80002-4

Reese, E., Haden, C. A., & Fivush, R. (1996). Mothers, fathers, daughters, sons: Gender differences in autobiographical reminiscing. *Research on Language and Social Interaction, 29*(1), 27–56. https://doi.org/10.1207/s15327973rlsi2901_2

Reese, E., Haden, C. A., Baker-Ward, L., Bauer, P. J., & Fivush, R. (2011). Coherence of personal narratives across the lifespan: A multidimensional model. *Journal of Cognition and Development, 12*(4), 424–462. https://doi.org/10.1080/15248372.2011.587854

Reese, E., & Fivush, R. (2008). The development of collective remembering. *Memory, 16*(3), 201–212. https://doi.org/10.1080/09658210701811882

Reese, E., Jack, F., & White, N. (2010). Origins of adolescents' autobiographical memory. *Developmental Psychology, 46(*1), 84–98. https://doi.org/10.1037/a0017165

Reese, E., Jack, F., & White, N. (2010). Origins of adolescents' autobiographical memories: A review of childhood antecedents and current influences. *Cognitive Development, 25*(4), 352–367. https://doi.org/10.1016/j.cogdev.2010.08.006

Reese, E., & Newcombe, R. (2007). Training mothers in elaborative reminiscing enhances children's autobiographical memory and narrative. *Child Development, 78*(4), 1153–1170. https://doi.org/10.1111/j.1467-8624.2007.01058.x

Rowe, M. L. (2008). Child-directed speech: Relation to socioeconomic status, knowledge of child development and child vocabulary skill. *Journal of Child Language, 35*(1), 185–205. https://doi.org/10.1017/S0305000907008343

Rubin, D. C., Boals, A., & Berntsen, D. (2008). Memory in posttraumatic stress disorder: Properties of voluntary and involuntary, traumatic and nontraumatic autobiographical memories in people with and without PTSD symptoms. *Journal of Experimental Psychology: General, 137*(4), 591–614.

Ruble, D. N., Martin, C. L., & Berenbaum, S. A. (2006). Gender development. In N. Eisenberg (Ed.), *Handbook of child psychology* (6th ed., Vol. 3, pp. 858–932). Wiley.

Sakallı-Uğurlu, N. (2002). Gender role socialization in the family. *Turkish Psychological Articles, 5*(10), 1–13.

Sales, J. M., Merrill, N. A., & Fivush, R. (2003). Mother–daughter reminiscing about stressful events: Socioemotional functions and relations with daughter adjustment. *Journal of Social and Personal Relationships, 20*(3), 423–442. https://doi.org/10.1177/0265407503020003006

Schroeder, K. M., Bower, J. L., & Green, M. (2019). Socioeconomic status and gender norms in childhood. *Journal of Youth and Adolescence, 48*(5), 912–927.

Schroeder, K. M., Ward, L. M., & Mendelson, M. (2019). Gender socialization and emotion: The role of mothers in shaping children's gendered emotional expression. *Sex Roles, 81*(3–4), 179–192. https://doi.org/10.1007/s11199-018-0981-1

Singer, J. A., & Blagov, P. (2004). The integrative function of narrative processing: Autobiographical memory, self-defining memories, and the life story of identity. *Memory, 12*(5), 527–544. https://doi.org/10.1080/09658210444000338

Siyanova-Chanturia, A., Warren, P. Pesciarelli, F. & Cacciari, C. (2015). Gender stereotypes across the ages: On-line processing in school-age children, young and older adults. *Frontiers in Psychology, 6*(1388). https://doi.org/10.3389/fpsyg.2015.01388

Spence, J. T., & Helmreich, R. L. (1978). *Masculinity and femininity: Their psychological dimensions, correlates, and antecedents*. University of Texas Press.

Steinberg, L., & Morris, A. S. (2001). Adolescent development. *Annual Review of Psychology, 52*, 83–110. https://doi.org/10.1146/annurev.psych.52.1.83

Tenenbaum, H. R. & Leaper, C. (2002). Are parents' gender schemas related to their children's gender-related cognitions? A meta-analysis. *Developmental Psychology, 38*, 615-630.

Thomson, C. E., Robinson, L. A., & Cameron, C. A. (2021). Mothers' gender ideologies and adolescent gender attitudes: A differential prediction model. *Journal of Adolescence, 88*, 12–24. https://doi.org/10.1016/j.adolescence.2021.01.003

Thorne, B. (1993). *Gender play: Girls and boys in school*. Rutgers University Press.

Ullrich, R., Becker, M., Scharf, J. (2022). The development of gender role attitudes during adolescence: Effects of sex, socioeconomic background, and cognitive abilities. *Journal of Youth and Adolescence, 5*1(11), 2114-2129. doi: 10.1007/s10964-022-01651-z.

UNECE. (2021). *Empowering women through reducing unpaid work* (76% share of unpaid care).

Valentino, K. (2014). Maternal reminiscing style and overgeneral autobiographical memories. *Journal of Experimental Child Psychology, 128*, 15–31. https://doi.org/10.1016/j.jecp.2014.02.005

Wang, Q. (2001). "Did you have fun?" American and Chinese mother–child conversations about shared emotional experiences. *Cognitive Development, 16*(2), 693–715. https://doi.org/10.1016/S0885-2014(01)00055-7

Wang, Q. (2001). Culture effects on adults' earliest childhood recollection and self-description: Implications for the relation between memory and the self. *Journal of Personality and Social Psychology, 81*(2), 220–233.

Wang, Q. (2004). The cultural context of children's autobiographical memory. *Current Directions in Psychological Science, 13*(5), 286–289. https://doi.org/10.1111/j.0963-7214.2004.00306.x

Wang, Q. (2006). Earliest recollections of self and others in European American and Taiwanese young adults. *Psychological Science, 17*(8), 708–714.

Wang, Q. (2007). Remember when you got the new bike? Mothers' contributions to children's autobiographical memory development. *Social Cognition, 25*(4), 455–471.

Wang, Q. (2008). On the cultural constitution of autobiographical memory. *Social and Personality Psychology Compass, 2*(2), 827–845.

Wang, Q., Doan, S. N., & Song, Q. (2010). Talking about internal states in mother–child reminiscing influences children's self-representations: A cross-cultural study. *Cognitive Development, 25*(4), 380–393. https://doi.org/10.1016/j.cogdev.2010.08.007

Wang, Q., & Fivush, R. (2005). Mother–child conversations of emotionally salient events: Exploring the functions of emotional reminiscing in European-American and Chinese families. *Social Development, 14*(3), 473–495. https://doi.org/10.1111/j.1467-9507.2005.00312.x

Wang, Q., & Ross, M. (2007). Culture and memory. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 645–667). The Guilford Press.

Waters, T. E. A., Camia, C., Facompré, C. R., & Fivush, R. (2019). A meta-analytic examination of maternal reminiscing style: Elaboration, gender, and children's cognitive development. *Psychological Bulletin, 145*(11), 1082–1102. https://doi.org/10.1037/bul0000211

Witt, S. D. (1997). Parental influence on children's socialization to gender roles. *Adolescence, 32*(126), 253–259.

Wong, A. T., & Kam, C. M. (2022). Parents' gender role beliefs and children's social-emotional development in early childhood. *Journal of Child and Family Studies, 31*, 2486–2500. https://doi.org/10.1007/s10826-022-02381-0

Wu, Y., Jobson, L. (2019). Maternal reminiscing and child autobiographical memory elaboration: A meta-analytic review. *Developmental Psychology, 55*(12), 2505-2521. doi: 10.1037/dev0000821.

Yu, K., Liao, Y., Fu, D., Chen, S. D., Long, Q. S., Xu, P. Y, J. J. (2020). Androgyny eliminates sex differences in emotional reactivity: ERP and network coupling evidence. *Neuroscience Letters, 720*(2), http://dx.doi.org/10.1016/j.neulet.2020.134776

Zaman, W., & Fivush, R. (2011). Gender differences in elaborative parent–child emotion and play narratives. *Sex Roles, 64*(5–6), 323–334. https://doi.org/10.1007/s11199-010-9918-2

Zaman, W., & Fivush, R. (2013). Gender differences in elaborative parent–child reminiscing style and children's autobiographical memory skills. *Journal of Cognition and Development, 14*(4), 602–620. https://doi.org/10.1080/15248372.2012.689825

Zhang, L., Li, S., & Chen, Y. (2024). Maternal gender-role orientation and child gender-role traits in single-parent homes. *BMC Psychology, 12*(45). https://doi.org/10.1186/s40359-024-01594-z

Zhang, X., Yan, H., Shah, S., et al. (2024). Childhood urbanicity is associated with emotional episodic memory-related striatal function and common variation in NTRK2. *BMC Medicine, 22*, Article 146. https://doi.org/10.1186/s12916-024-03365-4

APPENDICES

A. APPROVAL OF THE METU HUMAN SUBJECTS ETHICS COMMITTEE

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ
APPLIED ETHICS RESEARCH CENTER

DUMLUPINAR BULVARI 06800
ÇANKAYA ANKARA/TURKEY
T: +90 312 210 22 91
F: +90 312 210 79 59
ueam@metu.edu.tr
www.ueam.metu.edu.tr

ORTA DOĞU TEKNİK ÜNİVERSİTESİ
MIDDLE EAST TECHNICAL UNIVERSITY

Sayı: 28620816 /

09 ARALIK 2021

Konu : Değerlendirme Sonucu

Gönderen: ODTÜ İnsan Araştırmaları Etik Kurulu (İAEK)

İlgi : İnsan Araştırmaları Etik Kurulu Başvurusu

Sayın Prof.Dr. Sibel KAZAK BERUMENT ve Dr.Öğr.Üyesi Başak Şahin ACAR

"Ebeveynlik Tutumlarının ve Ebeveyn-Çocuk İletişim Özelliklerinin Çocuk ve Ergen Gelişimine Etkisi" başlıklı araştırmanız İnsan Araştırmaları Etik Kurulu tarafından uygun görülmüş ve **498-ODTU-2021** protokol numarası ile onaylanmıştır.

Saygılarımızla bilgilerinize sunarız.

Prof.Dr. Mine MİŞİRLİSOY
İAEK Başkan

B. APPROVAL OF MINISTRY OF EDUCATION

T.C.
MİLLÎ EĞİTİM BAKANLIĞI
Strateji Geliştirme Başkanlığı

Sayı : E-49614598-605.01-36250976 04.11.2021
Konu : Araştırma Uygulama İzni

DAĞITIM YERLERİNE

İlgi: a) Orta Doğu Teknik Üniversitesi Rektörlüğünün 04/08/2021 tarihli ve 48502539-604.01.03-E.8 sayılı yazısı.
b) Millî Eğitim Bakanlığının 21/01/2020 tarihli ve 2020/2 Nolu Araştırma Uygulama İzinleri Genelgesi.

İlgi (a) yazı ile Orta Doğu Teknik Üniversitesi, Fen Edebiyat Fakültesi, Psikoloji Bölümü Öğretim Üyelerinden Prof.Dr. Sibel Kazak BERUMENT'in "Ebeveynlik Tutumlarının ve Ebeveyn-Çocuk İletişim Özelliklerinin Çocuk ve Ergen Gelişimine Etkisi" konulu araştırmasına veri sağlamak amacıyla daha önce 13/09/2019 tarihinde alınmış anket çalışması onay izin süresinin 2021-2022 eğitim - öğretim dönemini kapsayacak şekilde uzatılması talebine ilişkin ilgi yazı ve ekleri Başkanlığımız tarafından incelenmiştir.

Bakanlığımıza bağlı resmi/özel okul ve kurumlarda öğrenci ve öğrenci velilerinin katılımıyla yapılması planlanan uygulamanın covid-19 tedbirlerine uyulması ve denetimi il/ilçe millî eğitim müdürlükleri ve okul/kurum idaresinde olmak üzere, kurum faaliyetlerini aksatmadan, gönüllülük esasına göre; onaylı bir örneği Bakanlığımızda muhafaza edilen ve uygulama sırasında da mühürlü ve imzalı örnekten çoğaltılan, veri toplama araçlarının online olarak;

1.ve 2. sınıf öğrencilerine,
https://boun.fra1.qualtrics.com/jfe/form/SV_5h7WoLH4TZlGsaq
3, 4, 5, 6, 7, 8, 9, 10 ve11. sınıf öğrencilerine,
https://boun.fra1.qualtrics.com/jfe/form/SV_af4ujAjf6NTjLQa
annelere,
https://boun.fra1.qualtrics.com/jfe/form/SV_bjUhpI4kMgvrdMG
babalara,
https://boun.fra1.qualtrics.com/jfe/form/SV_2ive4ZiHW9zzOOW
adreslerinden 2021-2022 eğitim - öğretim yılında uygulanmasına ilgi (b) Genelge doğrultusunda izin verilmiştir.

Gereğini bilgilerinize rica ederim.

Mehmet Fatih LEBLEBİCİ
Bakan a.
Başkan

Bu belge güvenli elektronik imza ile imzalanmıştır.
Adres : Atatürk Bulvarı 06648 Kızılay/Ankara
Belge Doğrulama Adresi : https://www.turkiye.gov.tr/meb-ebys
Bilgi için: Ceyla AYGÜN Koordinatör
Telefon No : 0 (312) 413 27 55
Unvan : Öğretmen
E-Posta: sgb_arastirmaizinleri@meb.gov.tr
İnternet Adresi: Faks:3124186401
Kep Adresi : meb@hs01.kep.tr
Bu evrak güvenli elektronik imza ile imzalanmıştır. https://evraksorgu.meb.gov.tr adresinden 0f97-66c4-35d2-a6ff-ff32 kodu ile teyit edilebilir.

C. CHILD MEASURES

BEM Sex Role Inventory for Children
Bem Cinsiyet Rolleri Envanteri

		Hiçbir Zaman	Bazen	Çoğu Zaman	Her Zaman
1.	Sınıfımdaki bir çok çocuğu kontrol edebilirim.	1	2	3	4
2.	Başkalarına ne olduğu ile ilgilenirim.	1	2	3	4
3.	Bir karar verilmesi gerekiyorsa kolaylıkla verebilirim.	1	2	3	4
4.	Sıcakkanlı bir insanım.	1	2	3	4
5.	Arkadaşlarım arasında liderimdir.	1	2	3	4
6.	Sevecen ve ilgili bir insanım.	1	2	3	4
7.	Oyun oynadığımda gerçekten kazanmak isterim.	1	2	3	4
8.	Birilerinin duyguları incindiğinde onları iyi hissettirmeye çalışırım.	1	2	3	4
9.	Yeteneklerimden eminim.	1	2	3	4
10.	Bebekleri ve küçük çocukları severim.	1	2	3	4
11.	İnandığım şeyleri savunurum.	1	2	3	4
12.	Kibar bir insanım.	1	2	3	4
13.	Sporda iyiyim.	1	2	3	4
14.	Şakacı bir insanım.	1	2	3	4
15.	İnsanlara ne düşündüğümü söylemek katılmayacaklarını bildiğimde bile benim için kolaydır.	1	2	3	4
16.	Birilerinden hoşlandığımda nasıl hissettiğimi onlara göstermek için hoş şeyler yaparım.	1	2	3	4
17.	Tanıştığım çoğu insanda güçlü bir etki bırakırım.	1	2	3	4
19.	Bazı şeylerin sorumluluğunu alma konusunda iyiyim.	1	2	3	4
20.	Başka birinin kötü hissetmesi bana kendimi kötü hissettirir.	1	2	3	4

D. MATERNAL MEASURES

Bem Sex Role Inventory for Mothers
Bem Cinsiyet Rolleri Envanteri

		Kesinlikle Katılmıyorum	Katılmıyorum	Biraz Katılıyorum	Odlukça Katılıyorum	Kesinlikle Katılıyorum
1.	Düşünce ve inançlarını savunan	1	2	3	4	5
2.	Duygusal	1	2	3	4	5
3.	Bağımsız / Dilediğini yapan	1	2	3	4	5
4.	Sempatik	1	2	3	4	5
5.	İddialı / Tuttuğunu koparan	1	2	3	4	5
6.	Diğer insanların duygularını önemseyen	1	2	3	4	5
7.	Sağlam karakterli / Güçlü kişilikli	1	2	3	4	5
8.	Anlayışlı	1	2	3	4	5
9.	İşe yarar ve becerikli	1	2	3	4	5
10.	Şefkatli / Merhametli	1	2	3	4	5
11.	Lider / Liderlik özelliklerine sahip	1	2	3	4	5
12.	Duygularına hakim olabilen/ Teskin edici	1	2	3	4	5
13.	Risk alabilen / Risk almayı seven	1	2	3	4	5
14.	Sıcak kanlı	1	2	3	4	5
15.	Baskın / Üstün / Hakim	1	2	3	4	5
16.	Sevecen / Sevgi dolu	1	2	3	4	5
17.	Muhalif / Muhalefet eden	1	2	3	4	5
18.	Çocukları seven	1	2	3	4	5
19.	Saldırgan	1	2	3	4	5
20.	Kibar / Nazik	1	2	3	4	5

E. MEASURE GIVEN TO BOTH MOTHERS AND CHILDREN

Autobiographical Questionnaire (Mother and Child)
Duygusal Olarak Olumlu ve Olumsuz Anılar

1. Şimdi senden bugüne kadar olan hayatını düşünmeni istiyoruz. Geçmişte yaşadığın ve seni mutlu eden bir anını/hatıranı hatırlamaya çalış. Lütfen bu mutlu anıyı/hatırayı elinden geldiği kadar ayrıntılı ve açık biçimde aşağıdaki kutuya yaz.

Bu anlattığın anı olduğu zaman, kaç yaşındaydın?_____

Bu anıyı duygusal olarak nasıl tanımlarsın?
1 2 3 4 5 6 7
Çok olumsuz Ne olumlu ne olumsuz Çok olumlu

Bu anıyı anlatmak senin için ne kadar kolay?
1 2 3 4 5 6 7
Çok zor Ne zor ne kolay Çok kolay

Bu anı senin için ne kadar net?

1 2 3 4 5 6 7

Hiç net değil Orta Çok net

2. Şimdi senden bugüne kadar olan hayatını düşünmeni istiyoruz. Geçmişte yaşadığın ve seni mutsuz eden bir anını/hatıranı hatırlamaya çalış. Lütfen bu mutlu anıyı/hatırayı elinden geldiği kadar ayrıntılı ve açık biçimde aşağıdaki kutuya yaz.

Bu anlattığın anı olduğu zaman, kaç yaşındaydın?_____

Bu anıyı duygusal olarak nasıl tanımlarsın?
1 2 3 4 5 6 7
Çok olumsuz Ne olumlu ne olumsuz Çok olumlu

Bu anıyı anlatmak senin için ne kadar kolay?
1 2 3 4 5 6 7
Çok zor Ne zor ne kolay Çok kolay
Bu anı senin için ne kadar net?

1 2 3 4 5 6 7

Hiç net değil Orta Çok net

Çocukluğun boyunca gün içinde olanları annenle ne sıklıkta konuşurdun?

1 2 3 4 5 6 7

Hiçbir zaman Orta Sıklıkta Çok sıkça

Anılar senin için ne kadar önemli?

1 2 3 4 5 6 7

Hiç önemli değil Orta derecede önemli Çok önemli

F. CURRICULUM VITAE

FATMA ŞEYMA KALKAN İNAN

CONTACT

E-mail:

EDUCATION

2020 – 2025	PhD	Middle East Technical University	Developmental Psychology
2012 – 2015	MA	CUNY Brooklyn College	School Psychology
2008 – 2012	BA	CUNY Hunter College	Psychology

WORK EXPERIENCE

2014-2015	CUNY Brooklyn College	Department of School Psychology, Counseling, and Leadership, Research Assistant
2015-2016	P.S. M079-Horan School, Department of Education	School Psychologist
2016-2018	Özel Düzce Su Damlası Okulları	School Psychologist

RESEARCH EXPERIENCE

2014-2015 Volunteer Research Assistant in Multicultural Counseling and Assessment Classes

2020 – 2024 PhD student in The Scientific and Technological Research Council of Turkey (TÜBİTAK) 1003 Project (Project Code: 113K033): Türkiye, Family, Child and Adolescent Project. Supervised by Başak Şahin-Acar

PUBLICATIONS

Pekaslan, N.E., Gönül, B., Işık, H., Şakar, D.T., Abut, F.B., **Kalkan-İnan, F.Ş**., Berument, S.K., Doğan, A., Tahiroğlu, D., Acar, B.Ş. (2024) "How do mothers' pre-pandemic emotion regulation skills and pandemic-related anxiety predict their children's sadness regulation during the COVID-19 pandemic?," *Applied Developmental Science*, 28 (4) pp. 674-684

PRESENTATIONS IN PEER REVIEWED INTERNATIONAL CONFERENCES

Mısır-Topal, C., Budak, Y., Abut, F. B., Kalkan-İnan, F. Ş., Berument, S. K., Doğan, A., Tahiroğlu, D., & Şahin-Acar, B. (2025). *Autobiographical Memory Development in Turkish Children and Adolescents: A Large-Scale Study.* Poster Presentation. The 54th Annual Meeting of the Jean Piaget Society, 29-31 May, Belgrade, Serbia

Işık Baş, H., Türe Şakar, D., Elibol Pekaslan, N., Gönül Atalay, B., Abut, F. B., **Kalkan İnan, F. Ş.**, Kazak Berument, S., Doğan, A., Tahiroğlu, D., & Şahin-Acar, B. (2023, March 23-25). *The role of parents' femininity and masculinity orientations on children's gender development* [Poster presentation]. SRCD 2023 Biennial Meeting, Utah, United States.

Elibol-Pekaslan, N., Gonul, B., Işık, H., Türe, D., Abut, F. B., **Kalkan-İnan, F. Ş**., Kazak-Berument, S., Dogan, A., Tahiroglu, D., & Sahin-Acar, B. (2021, July 21-23). Comparing emotional narrative styles of mothers and their children before and during COVID-19 pandemic [Paper presentation]. SARMAC Virtual Conference.

PRESENTATIONS IN PEER REVIEWED NATIONAL CONFERENCES

Abut, F. B., **Kalkan-İnan, Ş**., Şahin-Acar, B., Kazak Berument, S., Doğan, A. & Tahiroğlu, D. (2024, 10-11 Eylül). *Çocuk ve ergenlerde duygu yüklü otobiyografik anı özelliklerinin incelenmesi* [Poster sunumu]. 4. Gelişim Psikolojisi Sempozyumu, Ankara, Türkiye.

Kalkan-İnan, Ş., Abut, F. B., Şahin-Acar, B., Kazak Berument, S., Doğan, A. & Tahiroğlu, D. (2024, 5-7 Eylül). *Çocuk ve ergenlerde cinsiyet rolleri* [Poster sunumu]. Ulusal Psikoloji Lisansüstü Öğrencileri Kongresi: Yine Yeni Yeniden, Antalya, Türkiye.

Kalkan-İnan, Ş., Abut, F. B., Şahin-Acar, B., Kazak Berument, S., Doğan, A. & Tahiroğlu, D. (2024, 10-11 Eylül). *Annelerin cinsiyet rollerinin çocukların*

cinsiyet rolleri üzerindeki etkisi [Poster sunumu]. 4. Gelişim Psikolojisi Sempozyumu, Ankara, Türkiye.

Mısır, C., Budak, Y., Abut, F. B., **Kalkan-İnan, F. Ş**., Berument, S. K., Doğan, A., Tahiroğlu, D., & Şahin-Acar, B. (2024). Lise Türlerinin Duygu Yüklü Otobiyografik Anılarda Bahsedilen Kişiler Üzerindeki Etkisi. Poster sunumu. Ulusal Psikoloji Lisansüstü Öğrencileri Kongresi: Yine Yeni Yeniden, 5-7 Eylül, Antalya, Türkiye.

Mısır, C., Budak, Y., Abut, F. B., **Kalkan-İnan, F. Ş**., Berument, S. K., Doğan, A., Tahiroğlu, D., & Şahin-Acar, B. (2024). Duygu Yüklü Otobiyografik Anılarda Bahsedilen Kişiler: Okul Seviyelerinin Rolü. Poster sunumu. 4. Gelişim Psikoloji Sempozyumu, 10-11 Eylül, Ankara, Türkiye.

Abut, F. B., Elibol-Pekaslan, N., Gönül, B., Işık, H., Türe, D., **Kalkan İnan, Ş**., Kazak Berument, S., Doğan, A., Tahiroğlu, D., & Şahin-Acar, B. (2022, 8-9 Ekim). *COVID-19 öncesi ve sırasında anne çocuk duygu düzenleme stratejileri: Annelerin COVID-19 ile ilgili kaygısının aracı rolü* [Poster Sunumu]. 3. Gelişim Psikolojisi Sempozyumu, pp.65-66, İstanbul, Türkiye.

Abut, F. B., **Kalkan-İnan, F. Ş**., Elibol Pekaslan, N., Gönül, B., Işık, H., Türe, D., Kazak Berument, S., Doğan, A., Tahiroğlu, D., & Şahin-Acar, B. (2022, 13-16 Ekim). *COVID-19 pandemisinin çocuk ve ergenlerin üzüntü yönetimi becerileri üzerindek i etkisi* [Sözlü Sunum]. 21. Ulusal Psikoloji Kongresi, pp.232-233, İstanbul, Türkiye.

Şahin-Acar, B., Kazak Berument, S., Doğan, A., Tahiroğlu, D., Elibol-Pekaslan, N., Abut, F. B., & **Kalkan-İnan, F. Ş**. (2022, 8-9 Ekim). Ebeveyn-çocuk çiftlerinin ve çocukların yaşa bağlı toplumsal cinsiyet rolleri gelişi mi [Sözlü Sunum]. 3. Gelişim Psikolojisi Sempozyumu, pp.16, İstanbul, Türkiye.

G. TURKISH SUMMARY-TÜRKÇE ÖZET

GENEL GİRİŞ

Otobiyografik bellek, bireyin geçmişte yaşadığı olayları hatırlaması ve bu deneyimleri anlamlandırarak kimlik ve benlik gelişimini desteklemesi açısından kritik bir işlev görür (Nelson & Fivush, 2004). Çocuklukta bu bellek, bilişsel gelişim ve sosyal etkileşimler aracılığıyla kademeli olarak olgunlaşır; özellikle ebeveyn-çocuk geçmiş konuşmaları, çocukların olayları yapılandırma ve öznel bakış açılarını geliştirme süreçlerinde önemli rol oynar (Fivush & Nelson, 2004; Reese ve ark., 2011). Ebeveynlerin toplumsal cinsiyet rolleriyle ilişkili kişilik özellikleri, çocuklarla kurulan anlatı etkileşimlerinin niteliğini ve çocukların otobiyografik anlatılarındaki öznel bakış açısı kullanımını etkiler. Feminen özellikler, daha duygusal ve ayrıntılandırıcı anlatıları desteklerken; maskülen özellikler olgusal ve eylem odaklı anlatıları öne çıkarır (Fivush & Haden, 2003; Valentino ve ark., 2014). Bu farklılıklar, çocukların toplumsal cinsiyet gelişimini ve bellek anlatılarındaki bilişsel-duygusal ifadelerini şekillendirir (Bem, 1981; Bandura, 1977; Li ve ark., 2024).

Mevcut araştırmalar, çoğunlukla toplumsal cinsiyete odaklanmakta ve farklı gelişimsel evreler ile çocuk cinsiyetinin etkilerini yeterince incelememektedir. Bu çalışma, annelerin maskülen ve feminen özelliklerinin çocukların toplumsal cinsiyet rolü özelliklerini nasıl etkilediğini ve bunun öznel bakış açısı kullanımı ile anı yaşı üzerindeki rolünü iki zaman noktasında analiz etmeyi amaçlamaktadır. Böylece, farklı okul düzeyleri ve cinsiyetler arasında toplumsal cinsiyet temelli bilişsel-duygusal örüntülerin aktarımına dair daha bütüncül bir anlayış sunulmaktadır.

GİRİŞ

Anneliğe ilişkin uygulamalar, kültürel normlar, ebeveynlerin kişisel özellikleri ve çocukların bireysel farklılıklarının etkileşimiyle şekillenir. Maskülen ve feminen

toplumsal cinsiyet rolü özellikleri, ebeveynlik stillerinin oluşumunda belirleyici olup çocukların duygusal ve özerklik gelişimini etkiler (Maccoby & Martin, 1983; Leaper, 2002). Feminen anneler sıcak ve destekleyici, maskülen anneler ise bağımsızlık ve girişimciliği teşvik eden etkileşimler sergiler. Literatür, feminen özelliklerin duyarlı ebeveynlik, maskülen özelliklerin ise hedef odaklı ve yapılandırılmış davranışlarla ilişkili olduğunu göstermektedir (Ruble ve ark., 2006).

Annelerin toplumsal cinsiyet rolü özellikleri, çocukların öznel bakış açısı kullanımı, duygusal-bilişsel ifade biçimleri ve anı yaşı üzerinde etkili olabilir (Fivush & Haden, 2003; McLean & Breen, 2009). Benzer şekilde, çocukların toplumsal cinsiyet özellikleri de anlatı tarzlarını etkiler; feminen çocuklar daha duygusal ve ayrıntılı, maskülen çocuklar ise özerklik odaklı anlatılar tercih eder (Reese & Fivush, 2008). Kızlar genellikle erkeklerden daha erken yaşta ve daha zengin anılar hatırlar (Fivush & Haden, 2005). Anne-çocuk toplumsal cinsiyet uyumu bu farklılıkları güçlendirebilir.

Bu çalışma, annelerin maskülen/feminen özelliklerinin çocukların toplumsal cinsiyet gelişimi, öznel bakış açısı kullanımı ve anı yaşı üzerindeki etkilerini incelemektedir. Boylamsal tasarım kullanılarak farklı okul düzeylerinden toplanan verilerle toplumsal cinsiyet ve bellek gelişimi arasındaki etkileşim sistematik olarak analiz edilmiştir. Çalışma, toplumsal cinsiyet rolü kuramı ile otobiyografik bellek gelişimini bütünleştirerek özgün bir katkı sunmaktadır.

Araştırma Soruları ve Hipotezler

Bu araştırma, annelerin maskülen ve feminen toplumsal cinsiyet rolü özelliklerinin çocukların toplumsal cinsiyet rolü gelişimini ve otobiyografik bellek anlatılarında öznel bakış açısı kullanımını nasıl etkilediğini incelemeyi amaçlamaktadır. Ayrıca, annelerin toplumsal cinsiyet rolü özelliklerinin çocukların bildirdiği anı yaşını nasıl etkilediği de araştırılmaktadır.

Çalışma, iki zaman noktasından oluşan boylamsal bir tasarım kullanmakta ve çocukların cinsiyeti ile okul düzeyine göre farklılıkları analiz etmektedir. Yapısal

eşitlik modellemesiyle, bu çalışma şu sorulara yanıt aramaktadır: Annelerin toplumsal cinsiyet rolü özellikleri (maskülen ve feminen), çocukların toplumsal cinsiyet rolü özelliklerini nasıl etkilemektedir? Annelere ait toplumsal cinsiyet rolü özellikleri, çocukların öznel bakış açısı kullanımını, bilişsel ve duygusal ifade biçimlerini ve anı yaşlarını nasıl etkilemektedir? Zaman 1'de ölçülen annelik ve çocuk toplumsal cinsiyet rolü özellikleri, Zaman 2'de annelerin ve çocukların öznel bakış açısı kullanımını ne ölçüde yordamaktadır? Son olarak, çocuklarda öznel bakış açısı kullanımı ve anı yaşı üzerinde etkili olan faktörler nelerdir?

Araştırmanın hipotezleri şu şekilde belirlenmiştir: Annelerin maskülen ve feminen özelliklerinin, çocukların maskülen ve feminen özelliklerini pozitif yönde etkilemesi beklenmektedir. Hem maskülen hem de feminen düzeyi yüksek annelerin, özellikle kız çocuklarında, çocukların otobiyografik anılarında öznel bakış açısı kullanımını olumlu yönde etkilemesi beklenmektedir. Son olarak, annelerin maskülen ve feminen düzeylerinin, çocuklarda daha erken yaşta anı hatırlamayı yordaması beklenmektedir.

YÖNTEM

Mevcut Çalışma ve Katılımcılar

Bu çalışma, Türkiye Bilimsel ve Teknolojik Araştırma Kurumu (TÜBİTAK) tarafından yürütülen ulusal düzeyde boylamsal bir araştırma girişimi olan "Türk Aile, Çocuk ve Ergen Projesi"nin bir bileşeni olarak gerçekleştirilmiştir. Veriler, 7 ile 18 yaş arasındaki çocukları kapsayan 185 okuldan toplanmıştır. Projenin Birinci Zaman Noktası'nda (Time 1) toplam 6.211 çocuk, 5.988 anne ve 865 baba bulunmaktadır. Katılımcı sayısının yüksek olması nedeniyle, veri temizleme sürecinde yaklaşık 50.000 anı analiz edilmiştir. Elde edilen nitel verinin kapsamlılığı nedeniyle, veri analizlerine dahil edilmek üzere bir alt örneklem seçilmiştir. Bu doğrultuda, her okulun her sınıf düzeyinden dört öğrenci seçilerek toplam 2.656 anne-çocuk çifti oluşturulmuştur. Veri setleri ayrıca, Birinci ve İkinci Zaman Noktası'nda (Time 1 ve Time 2) eşleşen anne-çocuk çiftlerine ait olumlu ve olumsuz anılar olarak ikiye ayrılmıştır. Böylece biri olumlu anılar, diğeri olumsuz anılar için olmak üzere iki ayrı veri seti oluşturulmuştur.

Bu çalışmada, olumlu anılar için toplam 764 anne-çocuk çifti, olumsuz anılar için ise toplam 845 anne-çocuk çifti yer almıştır. Bu bağlamda olumluluk temalı bellekler için toplam 764 anne-çocuk çifti analizlere dâhil edilmiştir (çocukların yaş aralığı 7-17, *M* = 12.31, *SD* = 2.46; %50.9'u kızdır). Olumsuz temalı bellekler için toplam 845 anne-çocuk çifti çalışmaya dâhil edilmiştir (çocukların yaş aralığı 7-18, *M* = 12.51, *SD* = 2.53; %57.6'sı kızdır).

Ölçüm Araçları

Çocuklara yaş, cinsiyet, sınıf düzeyi ve yaşadıkları yer hakkında bilgi toplamak amacıyla Demografik Bilgi Formu uygulanmıştır. Çocukların algıladıkları cinsiyet rollerini değerlendirmek amacıyla "Bem Cinsiyet Rolü Envanteri" (Bem, 1974) uygulanmıştır. Bu ölçek 3. sınıf ve üzerindeki öğrencilere verilmiştir. Cinsiyet şema teorisine (Bem, 1981) dayalı olarak geliştirilen ölçek, maskülen ve feminen boyutlarını birbirinden bağımsız iki boyut olarak ele almakta, bireylerin her iki boyutta da yüksek ya da düşük puan alabileceğini varsaymaktadır. Bu çalışmada Bem (1981) tarafından geliştirilen kısa form kullanılmıştır. Ölçek, 10 maskülen ve 10 feminen özelliği içermektedir. Bu çalışmada Zaman 1 için Cronbach alfa güvenirlik katsayıları feminen özellikler alt ölçeği için .77 ve maskülen özellikler alt ölçeği için .79 bulunmuştur. Zaman 2'de feminen alt ölçek için .80, maskülen alt ölçek için .81 bulunmuştur. Son olarak, "Otobiyografik Bellek Anketi" verilmistir. Çocuklardan bir olumlu ve bir olumsuz anisi ayrıntılı olarak yazmaları istenmiştir. Katılımcılardan, "Şimdiye kadarki hayatını düşünmeni istiyoruz. Seni olumlu/olumsuz eden bir olayı anlatır mısın?" şeklinde yönlendirme yapılmıştır. Bellek anlatısından sonra, katılımcılar yaşlarını belirtmiş, ayrıca duygusal ton (pozitif/negatif değerlendirme), anlatım kolaylığı ve bellek netliğine ilişkin değerlendirmeler yapmıştır.

Demografik Bilgi Formu *annelere* de uygulanmıştır. Eğitim durumu, medeni durum, sosyoekonomik algı ve yaşadıkları bölge hakkında bilgi alınmıştır. Anneler için "Bem Cinsiyet Rolü Envanteri'nin" yetişkin formu (Özkan & Lajunen, 2005) uygulanmış, feminen ve maskülen alt ölçekler ayrı ayrı değerlendirilmiştir. Zaman 1'de feminen alt ölçek için Cronbach alfa .84, maskülen alt ölçek için .79; Zaman 2'de sırasıyla .87 ve .77 olarak bulunmuştur. Son olarak, annelerden de

“Otobiyografik Bellek Anketi” doldurmaları istenmiş ve aynı yönergeler uygulanmıştır.

İşlem

Proje kapsamında, Türkiye İstatistik Kurumu (TÜİK) tarafından, Türkiye’nin İstatistiki Bölge Birimleri Sınıflandırması’na (NUTS) göre 12 istatistiki bölgeden seçilmiştir. Okul büyüklüğü ve bölgesel öğrenci nüfusunu dikkate almak için büyüklüğe orantılı olasılık örnekleme yöntemi (PPS) kullanılmış ve temsil edici bir örneklem sağlanmaya çalışılmıştır. Bu yöntemle 62 şehir ve 180 okul seçilmiş; ancak ulaşılabilirlik kısıtları ve sınırlı öğrenci katılımı nedeniyle veri 61 şehir ve 185 okuldan toplanmıştır.

Veri toplama öncesinde, Orta Doğu Teknik Üniversitesi ve Milli Eğitim Bakanlığı (MEB) etik onayını vermiştir. Bu onayların ardından MEB, seçilen okullara resmi izin formlarını dağıtmıştır. Araştırmacılar daha sonra okul yöneticileriyle iletişime geçerek çalışmanın amacı ve prosedürlerini açıklamıştır. Annelerden yazılı bilgilendirilmiş onamlar çevrimiçi olarak alınmış, ve formları geri gönderdiklerinde kendileri aranarak çalışmanın amacı ve prosedürleri detaylı bir şekilde açıklanmıştır. Okuryazar olan annelere anketleri çevrimiçi olarak doldurmaları için bağlantılar gönderilmiştir. Veriler Qualtrics aracılığıyla toplanmıştır. Anneler anketleri tamamladıktan sonra, araştırmacılar okullara giderek çocuklardan veri toplamak amacıyla tabletler aracılığıyla yüz yüze veri toplama işlemini gerçekleştirmiştir.

BULGULAR

Okul Düzeyine Göre Anne Cinsiyet Rolü Özelliklerinin Çocukların Cinsiyet Rolü Özelliklerine Etkisi

Annelerin maskülen ve feminen özelliklerinin çocukların bellek anlatımlarındaki cinsiyet rolü özelliklerini yordayıp yordamadığını incelemek amacıyla iki ayrı çoklu regresyon analizi gerçekleştirilmiştir. Tüm analizlerde, brinci adımda, annelerin maskülen ve feminen puanları yordayıcı değişkenler olarak analize dâhil edilmiştir.

İkinci adımda, çocuğun okul düzeyi ve cinsiyeti eklenmiştir. Üçüncü adımda ise etkileşim terimleri (anne erkeksiliği × okul düzeyi, anne kadınsılığı × okul düzeyi, anne erkeksiliği × çocuk cinsiyeti ve anne kadınsılığı × çocuk cinsiyeti) modele dahil edilmiştir. Bu analiz, hem olumlu hem de olumsuz anı örneklemlerini kapsamakta olup toplamda 2.414 anne-çocuk çifti üzerinde gerçekleştirilmiştir.

Çocuk Maskülenliği

İlkokul düzeyinde, nihai model anlamli bulunmus ($F(8, 336) = 2.70$, $p = .007$) ve anne maskülenliğin (β= 1.02, $p = .017$) ve sınıf düzeyinin (β= .93, $p = .05$) anlamlı olduğu bulunmuştur. Anne maskülenlik ile sınıf düzeyi (β= -.23, $p = .055$) ve anne maskülenlik ile cinsiyet (β= -.27, $p = .025$) etkileşimleri çocuk maskülenliğini anlamlı biçimde yordamıştır. Basit eğim analizleri, yüksek anne maskülenliğin kız çocuklarda erkek çocuklara kıyasla daha yüksek maskülenlik özelliklerini yordadığını göstermiştir ($t = 2.40$, SE = .43, $p = .02$).

Ortaokul düzeyinde, nihai model de anlamlılığa ulaşmıştır ($F(8, 682) = 2.21$, $p = .025$). Anne maskülenlik çocuk maskülenliğini pozitif yönde yordamış (β= .64, p = .008) ve anne maskülenlik ile çocuk sınıf düzeyi etkileşiminin çocuk maskülenliği üzerinde negatif etkisi bulunmuştur (β= -.09, $p = .012$).

Lise düzeyinde, mihai model ($F(8, 467) = 4.73$, $p < .001$) anlamlı bulunmuştur. Çocuk cinsiyetinin (β= 1.36, $p < .001$) anlamlı bir etkisi olduğu ve anne feminenlik ile çocuk cinsiyeti etkileşiminin (β= -.19, $p = .073$) çocuk maskülenliği üzerinde marjinal bir etkiye sahip olduğu görülmüştür.

Çocuk Feminenliği

İlkokul düzeyinde, son model anlamlılığa ulaşmıştır ($F(8, 336) = 2.17$, $p = .029$). Sınıf düzeyi (β= 1.07, $p = .036$) anlamlı bulunmuş ve anne maskülenlik ile çocuk cinsiyeti etkileşiminin çocuk feminenliği üzerinde negatif bir etkisi olduğu görülmüştür (β= -.27, $p = .02$). Yapılan basit eğim analizlerinde, etkileşim terimi anlamlı kalmış; ancak hiçbir eğim tek başına anlamlı bulunmamıştır. Bu bulgu,

etkinin cinsiyete göre farklılık gösterdiğini ancak her iki etkinin de küçük ya da marjinal olabileceğini göstermektedir.

Ortaokul düzeyinde elde edilen sonuçlar, maskülenlik durumuna benzerlik göstermektedir. Son modelin ($F(8, 682) = 4.56$, $p < .001$) anlamlı oldugu bulunmuştur. Anne maskülenlik çocuk feminenliği üzerinde pozitif bir etki göstermiştir (β= .51, $p = .046$) ve anne maskülenlik ile çocuk sınıf düzeyi etkileşiminin çocuk feminenliği üzerinde negatif bir etkisi bulunmuştur (β= -.08, $p = .042$).

Lise düzeyinde elde edilen sonuçlar son modelin ($F(8, 467) = 2.72$, $p = .006$) anlamlı olduğunu gostermiştir. Modelin son adımında yalnızca maternal maskülenlik ile çocuk cinsiyeti etkileşimi (β= -.20, $p = .040$) çocuk feminenliği üzerinde negatif etki göstermiştir. Basit eğim analizleri sonucunda hiçbir eğim tek başına anlamlı bulunmamıştır; ancak etkileşimin anlamlılığı, maternal maskülenliğin çocuk feminenliği üzerindeki etkisinin kız ve erkek çocuklarda farklılaştığını göstermektedir. Buna göre, yüksek maternal maskülenlik kız çocuklarda daha düşük feminenlik ile ilişkilidir.

Annenin Toplumsal Cinsiyet Rollerinin Çocuğun Öznel Bakış Açısı Kullanımı ve Anı Hatırlama Yaşı Üzerindeki Etkisi

Ön analiz niteliğindeki çoklu regresyon analizleri, kontrol değişkenlerinin (çocuğun yaşı, çocuğun cinsiyeti, maternal öznel bakış açısı kullanımı) çocukların öznel bakış açısı kullanımının ve anı hatırlama yaşının anlamlı yordayıcıları olduğunu göstermiştir. Etkileşim terimlerinin hesaplanmasından önce tüm sürekli değişkenler ortalama merkezleme (mean-centering) işlemine tabi tutulmuştur. Hipotez 2'nin test edilmesi amacıyla yapısal eşitlik modelleri uygulanmıştır: anne maskülenlik ve feminenlik çocukların toplumsal cinsiyet rollerini etkilemekte, bu roller de çocukların öznel bakış açısı kullanımını ve anı hatırlama yaşını yordamaktadır.

Olumlu Anılar

Başlangıçtaki moderasyon modelleri, ilkokul düzeyi için zayıf uyum göstermiştir, $\chi^2(41)= 33.91$, CFI = .18, RMSEA = .42; ortaokul düzeyi için $\chi^2(41) = 4.39$, CFI =

.75, RMSEA = .10; ve lise düzeyi için $\chi^2(41) = 26.90$, CFI = .16, RMSEA = .36. Anne-çocuk arasında anlamlı yol bulunmamıştır. Ancak ilişkiler ayrıldığında, anne ve çocuk toplumsal cinsiyet rollerinin öznel bakış açısı kullanımı ile nasıl ilişkili olduğu daha net bir şekilde ortaya çıkmıştır. Anne ve çocuk arasında tek bir yol kurmak yerine, yeni model iki ayrı model olarak yapılandırılmıştır: ilki, annenin maskülenlik ve feminenliğinden çocuğun öznel bakış açısı kullanımı ve anı hatırlama yaşına doğrudan bir yol içermekte; ikincisi ise çocuğun maskülenlik ve feminenliğinden çocuğun öznel bakış açısı kullanımı ve anı hatırlama yaşına giden yolu modellemektedir.

İlkokul Düzeyi

Anne modelinin uyumu iyi bulundu, $\chi^2(33) = 44.94$, $p = .08$, CFI = .96, RMSEA = .04. Çocuğun öznel bakış açılarını kullanımına yalnızca kontrol yolları etkide bulundu; çocuk yaşı ($\beta = .04$, $SE = .02$, $p = .014$) ve cinsiyeti ($\beta = -.45$, $SE = .22$, $p = .039$). Benzer şekilde, çocuğun yaşı ($\beta = .09$, $SE = .02$, $p < .001$) anı hatırlama yaşı üzerinde etkili oldu.

Çocuk modeli, iyi bir uyum göstermiştir, $\chi^2(33) = 54.34$, p = .01, CFI = .99, RMSEA = .06. Sonuçlar, çocuğun maskülenliğinin olumlu anılarda çocuğun öznel bakış açılarını kullanımına pozitif etkisi olduğunu göstermektedir ($\beta = 3.10$, $SE = 1.34$, $p = .02$). Çocuğun yaşı ($\beta = .04$, $SE = .02$, $p = .003$) ve cinsiyeti ($\beta = -.48$, $SE = .22$, $p = .027$) de çocuğun öznel bakış açılarını kullanımını pozitif yönde etkilemektedir. Çocuğun yaşı arttıkça öznel bakış açılarının kullanımı artmakta ve kız çocukları erkeklerden daha fazla öznel bakış açısı kullandigi görülmüştür. Benzer şekilde, çocuğun yaşı ($\beta = .08$, $SE = .02$, $p < .001$) çocuğun anı hatırlama yaşı üzerinde de pozitif etki görülmüştür. Çocuğun maskülenliği ile yaşı arasındaki etkileşim, çocuğun öznel bakış açılarını kullanımını öngörmede anlamlı bulunmuştur ($\beta = .09$, $SE = .04$, $p = .018$). Bu durum, çocuğun maskülenliği ile öznel bakış açılarını kullanma arasındaki ilişkinin yaşa bağlı olarak değiştiğini göstermektedir.

Ortaokul Düzeyi

Anne modeline ilişkin olarak, anneye ait değişkenlerin ayrılması bu model için iyi bir uyum sağlamıştır, $\chi^2(33) = 41.85$, $p = .139$, CFI = .98, RMSEA = .03. Anne

tarafından öznel bakış açıları kullanımı, çocuğun öznel bakış açılarını kullanımının pozitif bir öngörücüsü olmuştur (β = .10, *SE* = .04, p = .013). Kontrol değişkenler arasında yalnızca çocuğun yaşı (β = .06, *SE* = .01, $p < .001$) çocuğun anı yaşı üzerinde pozitif bir etki göstermiştir.

Çocuk modeli, iyi bir uyum sergilemiştir, $\chi^2(33) = 44.23$, p = .092, CFI = .98, RMSEA = .03. Sonuçlar, çocuğun maskülenliğinin olumlu anılarda çocuğun öznel bakış açılarını kullanımına marjinal pozitif etkisi olduğunu göstermektedir (β = .40, *SE* = .23, p = .076). Anne tarafından öznel bakış açıları kullanımı, çocuğun öznel bakış açılarını kullanımını bir kez daha pozitif yönde etkilemiştir (β = .11, *SE* = .04, p = .009). Son olarak, çocuğun yaşı (β = .06, *SE* = .01, $p < .001$) çocuğun anı yaşı üzerinde pozitif etki göstermiştir.

Lise Düzeyi

Anne modeline ilişkin olarak, anneye ait öngörücü değişkenlerin ayrılması bu model için iyi bir uyum sağlamıştır, $\chi^2(33) = 70.26$, p = .000, CFI = .83, RMSEA = .08. Çocuğun yaşı (β = .06, *SE* = .02, $p < .001$) ve cinsiyeti (β = -1.29, *SE* = .41, p = .003) gibi kontrol değişkenleri, anı yaşı üzerinde pozitif etki göstermiştir; yalnızca çocuğun cinsiyeti (β = -.72, *SE* = .33, p = .03) öznel bakış açılarını kullanım üzerinde pozitif etki göstermiştir. Çocuğun maskülenliği ile yaşı arasındaki etkileşim, çocuğun öznel bakış açılarını kullanımını öngörmede anlamlı bulunmuştur (β = .02, *SE* = .01, p = .004). Bu durum, çocuğun maskülenliği ile öznel bakış açılarını kullanma arasındaki ilişkinin yaşa bağlı olarak değiştiğini göstermektedir.

Çocuk modeli, iyi bir uyum sergilemiştir, $\chi^2(33) = 60.93$, p = .002, CFI = .98, RMSEA = .07. Çocuğun yaşı (β = .05, *SE* = .02, p = .002) ve cinsiyeti (β = -1.08, *SE* = .40, p = .008) gibi kontrol değişkenleri, anı yaşı üzerinde pozitif etki göstermiştir. Yalnızca çocuğun cinsiyeti (β = -.76, *SE* = .33, p = .02) öznel bakış açılarını kullanım üzerinde pozitif etki göstermiştir.

Olumsuz Anılar

İlk modelleme, ilkokul düzeyinde $\chi^2(54) = 29.46$, CFI = .17, RMSEA = .37, ortaokul düzeyinde $\chi^2(54) = 3.92$, CFI = .75, RMSEA = .09 ve lise düzeyinde $\chi^2(54) = 25.00$,

CFI = .16, RMSEA = .31 uyumlarının yetersiz olduğunu göstermiştir; bu durum, olumlu anı analizlerinde uygulanan model değişikliği yapılmasını gerektirmiştir.

İlkokul Düzeyi

Ayrılmış *anne modeline* ilişkin olarak, anne maskülenliği ve feminenliğinin çocuk sonuçlarını doğrudan öngörmesine izin verilmesi uyumu artırmıştır, $\chi^2(33) = 69.11$, $p = .000$, CFI = .90, RMSEA = .07. Çocuğun yaşı, anı hatırlama yaşını pozitif yönde etkilemiştir ($\beta = .06$, $SE = .02$, $p = .009$). Bu sonuç, çocuğun yaşı arttıkça öznel bakış açılarını kullanımının ve anı hatırlama yaşının da arttığını göstermektedir. Çocuğun cinsiyeti, olumsuz anılarda öznel bakış açılarını kullanım üzerinde de etkili olmuştur ($\beta = -.92$, $SE = .26$, $p < .001$). Kız çocukları, erkek çocuklara göre daha fazla öznel bakış açısı kullanımı bildirmiştir.

Çocuğun maskülenliği ve feminenliğinin kendi sonuçlarını öngörmesine izin verilmesi, kabul edilebilir bir uyum sağlamıştır, $\chi^2(33) = 72.64$, $p < .001$, CFI = .98, RMSEA = .08. Çocuğun yaşı, öznel bakış açılarını kullanım üzerinde pozitif etki göstermiştir ($\beta = .04$, $SE = .02$, $p = .04$) ve anı hatırlama yaşını da pozitif yönde etkilemiştir ($\beta = .06$, $SE = .02$, $p = .008$). Yaş arttıkça, öznel bakış açılarını kullanım ve anı yaşı da artmaktadır. Cinsiyet açısından bakıldığında, kız çocukları daha yüksek öznel bakış açısı kullanımı göstermiştir ($\beta = -.92$, $SE = .26$, $p < .001$).

Ortaokul Düzeyi

Anne modeline ilişkin olarak, model çok iyi uyum sergilemiştir, $\chi^2(33) = 26.51$, $p = .781$, CFI = 1.00, RMSEA = .00. Bu model uyum göstergeleri mükemmel uyumu işaret etse de, modelin yeterliliğine dair anlamlı kanıt sağlamayabileceği için dikkatle yorumlanmalıdır (Kline, 2016; Kenny ve ark., 2015). Annenin feminenliği ($\beta = .68$, $SE = .29$, $p = .02$), çocuğun anı yaşı üzerinde pozitif etki göstermiştir. Anne daha yüksek feminen özellikler sergiledikçe, çocuklarda bildirilen anı yaşı da artmaktadır. Çocuğun yaşı anı yaşını pozitif yönde öngörmüştür ($\beta = .05$, $SE = .01$, $p < .001$). Bu, çocuğun yaşı arttıkça anı hatırlama yaşının da arttığını göstermektedir. Çocuğun cinsiyeti, olumsuz anılarda çocuğun öznel bakış açılarını kullanımını etkilemiş ($\beta =$ -

1.21, *SE* = .27, *p* < .001). Kız çocukları, erkek çocuklara göre daha fazla öznel bakış açısı kullanımı bildirmiştir. Anne tarafından öznel bakış açıları kullanımı da çocuğun öznel bakış açılarını kullanımı ile pozitif ilişkilendirilmiştir (*β* = .15, *SE* = .03, *p* < .001).

Çocuk modeline ilişkin olarak, bu model de çok iyi uyum sergilemiştir, $\chi^2(33)$ = 25.90, *p* = .806, CFI = 1.00, RMSEA = .00; ancak, bu sonuçlar modelin yeterliliğine dair anlamlı kanıt sağlamayabileceği için dikkatle yorumlanmalıdır. Bu modelde, anne tarafından öznel bakış açıları kullanımı, çocuğun öznel bakış açılarını kullanımını pozitif yönde öngörmüştür (*β* = .15, *SE* = .03, *p* < .001). Kontrol yolları, önceki etkileri yeniden üretmiştir. Çocuğun yaşı, anı yaşı üzerinde pozitif etkiye sahiptir (β = .05, SE = .01, p < .001). Yaş arttıkça, anı yaşı da artmaktadır. Cinsiyet açısından bakıldığında, kız çocukları daha yüksek öznel bakış açısı kullanımı göstermiştir (*β* = -.92, *SE* = .26, *p* < .001).

Lise Düzeyi

Anne modeline ilişkin olarak, model tatmin edici bir uyum sergilemiştir, $\chi^2(33)$ = 62.89, p = .001, CFI = .89, RMSEA = .06. Anne feminenliği (*β* = -1.45, *SE* = .58, *p* = .01), çocuğun öznel bakış açılarını kullanımını negatif yönde etkilemiştir. Anne daha düşük feminen özellikler sergiledikçe, çocuklarda öznel bakış açıları kullanımı artmaktadır. Anne tarafından öznel bakış açıları kullanımı, çocuğun öznel bakış açılarını kullanımını pozitif yönde etkilemiştir (*β* = .32, *SE* = .10, *p* = .001). Kontrol yolları arasında, çocuğun yaşı anı yaşı üzerinde pozitif öngörüde bulunmuştur (*β* = .03, *SE* = .02, *p* = .029). Bu, çocuğun yaşı arttıkça anı hatırlama yaşının da arttığını göstermektedir. Çocuğun maskülenliği ile yaşı arasındaki etkileşim, hem çocuğun öznel bakış açılarını kullanımı (*β* = .04, *SE* = .02, *p* = .008) hem de anı yaşı (*β* = .03, *SE* = .01, *p* = .003) üzerinde anlamlı bulunmuştur. Bu durum, çocuğun maskülenliği ile öznel bakış açılarını kullanma arasındaki ilişkinin yaşa bağlı olarak değiştiğini göstermektedir. Cinsiyet ile çocuğun maskülenliği arasındaki etkileşim, çocuğun öznel bakış açılarını kullanımını öngörmede anlamlı bulunmuştur (*β* = -2.51, *SE* = 1.29, *p* = .05).

Çocuk modeline ilişkin olarak, bu model de iyi bir uyum sergilemiştir, $\chi^2(33)$ = 81.99, *p* = .000, CFI = .97, RMSEA = .08. Çocuğun maskülenliği, çocuğun öznel

bakış açılarını kullanımını pozitif yönde öngörmüştür (β = 4.30, *SE* = 1.95, p = .027). Anne tarafından öznel bakış açıları kullanımı, çocuğun öznel bakış açılarını kullanımını pozitif yönde öngörmüştür (β = .28, *SE* = .10, p = .004). Kontrol yolları, önceki etkileri yeniden üretmiştir. Çocuğun yaşı, anı yaşı üzerinde pozitif etkiye sahiptir (β = .04, *SE* = .02, p = .028). Yaş arttıkça, anı yaşı da artmaktadır. Cinsiyet açısından bakıldığında, kız çocukları daha yüksek öznel bakış açısı kullanımı göstermiştir (β = -1.19, *SE* = .60, p = .047). Cinsiyet ile çocuğun maskülenliği arasındaki etkileşim, çocuğun öznel bakış açılarını kullanımını öngörmede anlamlı bulunmuştur (β = 2.87, *SE* = 1.39, p = .04).

Cinsiyet Rollerinin Öznel Bakış Açılarının Kullanımı Üzerindeki Etkisi (Zaman 1 ve Zaman 2 Arasında)

Zaman 1'deki anne ve çocuk cinsiyet rollerinin, Zaman 2'de öznel bakış açıları kullanımını öngörüp öngörmediğini değerlendirmek için AMOS kullanılarak yapısal eşitlik modeli (SEM) test edilmiştir. Olumlu ve olumsuz anı koşulları için, ilkokul, ortaokul ve lise düzeylerine göre ayrı modeller yürütülmüştür.

Olumlu Anılar

İlkokul düzeyinde, olumlu anılar için model kabul edilebilir uyum göstermiştir, $\chi^2(39)$ = 64.63, p = .003, CFI = .95, RMSEA = .06. Zaman 1'deki anne ve çocuk maskülenliği ile feminenliği, Zaman 2'de ne anne ne de çocuğun öznel bakış açılarını kullanımını anlamlı şekilde öngörmemiştir. Yalnızca Zaman 1'deki çocuk feminenliği, Zaman 2'de annenin öznel bakış açılarını kullanımını negatif yönde öngörmüştür (β = -1.07, *SE* = .53, p = .04). Çocuğun yaşı, çocuğun öznel bakış açılarını kullanımı ile pozitif ilişkili bulunmuştur (β = .03, *SE* = .02, p = .03); bu, daha büyük çocukların olumlu anıları hatırlarken daha fazla öznel bakış açısı kullandığını göstermektedir. Zaman 1'de annelerin öznel bakış açılarını kullanımı, hem kendi Zaman 2'deki kullanımını öngörmüştür (β = .63, *SE* = .06, $p < .001$). Çocuğun cinsiyeti veya yaşı ile ilgili etkileşim terimleri istatistiksel olarak anlamlı bulunmamıştır.

Ortaokul düzeyinde, olumlu anılar için model iyi bir uyum sergilemiştir, $\chi^2(39)$ = 2.05, CFI = .93, RMSEA = .05. Zaman 1'deki anne ve çocuk maskülenliği ile

feminenliği, Zaman 2'de ne anne ne de çocuğun öznel bakış açılarını kullanımını anlamlı şekilde öngörmemiştir. Yine yalnızca Zaman 1'deki çocuk feminenliği, Zaman 2'de annenin öznel bakış açılarını kullanımını öngörmüştür; bu kez etki pozitif olmuştur (β = .56, *SE* = .26, p = .03). Zaman 1'de annelerin öznel bakış açılarını kullanımı, kendi Zaman 2'deki kullanımını öngörmüştür (β = .28, *SE* = .04, $p < .001$). Çocuğun Zaman 1'deki öznel bakış açılarını kullanımı da kendi Zaman 2'deki kullanımını öngörmüştür (β = .25, *SE* = .05, $p < .001$). Çocuğun cinsiyeti veya yaşı ile ilgili kontrol yolları veya etkileşim terimleri anlamlı bulunmamıştır.

Lise düzeyinde, olumlu anılar için model kabul edilebilir uyum göstermiştir, $\chi^2(39) = 76.55$, $p < .001$, CFI = .92, RMSEA = .07. Zaman 1'deki anne ve çocuk maskülenliği ile feminenliği, Zaman 2'de ne anne ne de çocuğun öznel bakış açılarını kullanımını anlamlı şekilde öngörmemiştir. Zaman 1'de annelerin öznel bakış açılarını kullanımı, kendi Zaman 2'deki kullanımını öngörmüştür (β = .18, *SE* = .04, $p < .001$). Çocuğun Zaman 1'deki öznel bakış açılarını kullanımı da kendi Zaman 2'deki kullanımını öngörmüştür (β = .35, *SE* = .04, $p < .001$). Etkileşim terimlerinden, Zaman 1'de çocuğun maskülenliği ile yaşı arasındaki etkileşim, Zaman 2'de çocuğun öznel bakış açılarını kullanımını pozitif yönde öngörmüştür (β = .02, *SE* = .01, p = .03). Benzer şekilde, Zaman 1'de çocuğun maskülenliği ile cinsiyeti arasındaki etkileşim de Zaman 2'de çocuğun öznel bakış açılarını kullanımını pozitif yönde öngörmüştür (β = 1.16, *SE* = .60, p = .05).

Olumsuz Anılar

İlkokul düzeyinde, bu model iyi bir uyum sergilemiştir, $\chi^2(39) = 72.07$, p = .001, CFI = .94, RMSEA = .07. Olumsuz anılar modelinde, Zaman 1'deki çocuk maskülenliği, Zaman 2'de çocuğun öznel bakış açılarını kullanımını negatif yönde öngörmüştür (β = -.60, *SE* = .30, p = .04). Çocuğun feminenliği, Zaman 2'de annenin öznel bakış açılarını kullanımını negatif yönde etkilemiştir (β = -1.18, *SE* = .42, p = .005). Çocuğun cinsiyeti, çocuklarda öznel bakış açılarını kullanımını negatif yönde öngörmüştür (β = -.70, *SE* = .25, p = .004); kızlar daha yüksek öznel bakış açısı kullanımı göstermiştir. Ayrıca, Zaman 1'de annelerin öznel bakış açılarını kullanımı, kendi Zaman 2'deki kullanımını öngörmüştür (β = .26, *SE* = .04, $p < .001$). Çocuğun

Zaman 1'deki öznel bakış açılarını kullanımı da kendi Zaman 2'deki kullanımını öngörmüştür (β = .32, *SE* = .08, $p < .001$).

Ortaokul düzeyinde, bu model iyi bir uyum sergilemiştir, $\chi^2(39) = 71.49$, $p = .001$, CFI = .95, RMSEA = .05. Bu modelde cinsiyet rolleri anlamlı bulunmamıştır. Çocuğun cinsiyeti, çocuklarda öznel bakış açılarını kullanımını negatif yönde öngörmüştür (β = -1.10, *SE* = .27, $p < .001$); kızlar daha yüksek öznel bakış açısı kullanımı göstermiştir. Ayrıca, Zaman 1'de annelerin öznel bakış açılarını kullanımı, hem kendi Zaman 2'deki kullanımını (β = .38, *SE* = .06, $p < .001$) hem de çocuğun Zaman 2'deki öznel bakış açılarını kullanımını (β = .10, *SE* = .04, p = .005) öngörmüştür. Çocuğun Zaman 1'deki öznel bakış açılarını kullanımı da kendi Zaman 2'deki kullanımını öngörmüştür (β = .21, *SE* = .04, $p < .001$).

Lise düzeyinde, bu model kabul edilebilir uyum göstermiştir, $\chi^2(39) = 84.28$, p = .000, CFI = .93, RMSEA = .07. Bu modelde cinsiyet rolleri anlamlı bulunmamıştır. Zaman 1'de annelerin öznel bakış açılarını kullanımı, hem kendi Zaman 2'deki kullanımını *(*β = .40, *SE* = .05, $p < .001$) hem de çocuğun Zaman 2'deki öznel bakış açılarını kullanımını (β = .18, *SE* = .09, p = .04) öngörmüştür. Çocuğun Zaman 1'deki öznel bakış açılarını kullanımı da kendi Zaman 2'deki kullanımını öngörmüştür (β = .43, *SE* = .07, $p < .001$). Cinsiyet ile çocuğun maskülenliği arasındaki etkileşim, olumsuz anılarda çocuğun öznel bakış açılarını kullanımını öngörmede anlamlı bulunmuştur (β = -2.74, *SE* = 1.23, p = .03).

Zaman 1'deki Faktörlerin Zaman 2'de Çocuğun Öznel Bakış Açısı Kullanımı Üzerindeki Etkisi: Regresyon Analizleri

Çocuğun Olumlu Anıları için Regresyon Analizleri

Zaman 2'de çocukların olumlu anılarda öznel bakış açılarını kullanımını etkileyen Zaman 1 faktörlerini incelemek için hiyerarşik regresyon analizi, okul düzeylerine göre ayrı ayrı yürütülmüştür.

İlkokul düzeyinde, 1. adımda Zaman 1'de annelerin öznel bakış açıları, çocukların öznel bakış açıları ve annelerin feminenlik ile maskülenliği modele dahil edilmiştir.

Bu model anlamlı bulunmuştur, $F(4,185) = 2.52$, $p = .04$. 2. adımda, çocukların sınıf düzeyi, annelerin eğitim durumu, algılanan sosyoekonomik durum (SES) ve coğrafi bölge eklenmiş, model anlamlılığını korumuştur, $F(8,181) = 3.25$, $p = .002$. 3. adımda, çocukların yaşı ve cinsiyeti eklenmiş ve model anlamlı bulunmuştur, $F(10,179) = 2.74$, $p = .004$. 4. adım, son adım olarak, Zaman 2'de annelerin öznel bakış açıları eklenmiş ve anlamlı bir nihai model elde edilmiştir, $F(11,179) = 2.51$, $p = .006$. Bu analizde son adımda, çocuğun Zaman 1'deki öznel bakış açılarını kullanımı ($\beta = .18$, $SE = .08$, $p = .03$) ve coğrafi bölge ($\beta = -.73$, $SE = .29$, $p = .014$), çocuğun Zaman 2'de olumlu anılarda öznel bakış açılarını kullanımını etkilemiştir. Özetle, Zaman 1'de çocuklar tarafından kullanılan daha yüksek düzeyde öznel bakış açıları, Zaman 2'de olumlu anılarda artan öznel bakış açıları kullanımı ile ilişkilidir; ayrıca kentsel bölgede yaşayan çocuklar, olumlu anılarda daha fazla öznel bakış açısı kullanımı göstermiştir.

Ortaokul düzeyinde aynı analiz gerçekleştirilmiştir. Son model anlamlı bulunmuştur, $F(11,358) = 2.99$, $p < .001$. Son adımda, çocuğun Zaman 1'deki öznel bakış açılarını kullanımı ($\beta = .25$, $SE = .05$, $p < .001$) Zaman 2'de olumlu anılarda öznel bakış açılarını kullanımını etkilemiştir. Özetle, Zaman 1'de çocuklar tarafından kullanılan daha yüksek düzeyde öznel bakış açıları, Zaman 2'de çocukların olumlu anılarında artan öznel bakış açıları kullanımı ile ilişkilidir.

Lise düzeyinde aynı analiz gerçekleştirilmiştir. Son model anlamlı bulunmuştur, $F(11,192) = 7.59$, $p < .001$. Son adımda, çocuğun Zaman 1'deki öznel bakış açılarını kullanımı ($\beta = .35$, $SE = .04$, $p < .001$) Zaman 2'de olumlu anılarda öznel bakış açılarını kullanımını etkilemiştir. Özetle, Zaman 1'de çocuklar tarafından kullanılan daha yüksek düzeyde öznel bakış açıları, Zaman 2'de çocukların olumlu anılarında artan öznel bakış açıları kullanımı ile ilişkili bulunmuştur.

Çocuğun Olumsuz Anıları için Regresyon Analizleri

Çocukların olumsuz anılarda öznel bakış açılarını kullanımını öngören faktörleri belirlemek amacıyla hiyerarşik regresyon analizi yürütülmüştür.

İlkokul düzeyinde, birinci adımda Zaman 1'de annelerin ve çocukların öznel bakış açıları ile annelerin feminenlik ve maskülenliği modele dahil edilmiştir. Model

anlamlı bulunmuştur, $F(4,197) = 5.96$, $p < .001$. Ikinci adımda çocukların sınıf düzeyi, annelerin eğitim durumu, algılanan SES ve coğrafi bölge eklenmiş ve model anlamlılığını korumuştur, $F(8,193) = 3.35$, $p = .001$. Üçüncü adımda çocuk yaşı ve cinsiyeti eklenmiş ve model anlamlı bulunmuştur, $F(10,191) = 3.55$, $p < .001$. Dördüncü adımda Zaman 2'de annelerin öznel bakış açıları eklenmiş ve model anlamlılığını korumuştur, $F(11,190) = 3.25$, $p < .001$. Özetle, Zaman 1'de çocuklar tarafından daha fazla öznel bakış açısı kullanımı ($\beta = .31$, $SE = .08$, $p < .001$) ve çocuğun cinsiyeti, özellikle kızlar ($\beta = -.70$, $SE = .26$, $p = .009$), Zaman 2'de çocukların olumsuz anılarında daha fazla öznel bakış açısı kullanımı ile ilişkilendirilmiştir.

Ortaokul düzeyinde aynı analiz gerçekleştirilmiştir. Model anlamlı bulunmuştur, $F(4,378) = 8.59$, $p < .001$. 2. adımda çocukların sınıf düzeyi, annelerin eğitim durumu, algılanan SES ve coğrafi bölge eklenmiş ve model anlamlılığını korumuştur, $F(8,374) = 4.99$, $p < .001$. 3. adımda çocuk yaşı ve cinsiyeti eklenmiş ve model anlamlı bulunmuştur, $F(10,371) = 5.86$, $p < .001$. 4. adımda Zaman 2'de annelerin öznel bakış açıları eklenmiş ve model anlamlılığını korumuştur, $F(11,371) = 7.05$, $p < .001$. Özetle, Zaman 1'de çocuklar tarafından daha fazla öznel bakış açısı kullanımı ($\beta = .23$, $SE = .05$, $p < .001$), annenin daha yüksek eğitim düzeyi ($\beta = .28$, $SE = .12$, $p = .014$), çocuğun cinsiyeti, özellikle kızlar ($\beta = -1.14$, $SE = .27$, $p < .001$) ve Zaman 2'de annelerin daha fazla öznel bakış açısı kullanımı ($\beta = .13$, $SE = .03$, $p < .001$), Zaman 2'de çocukların olumsuz anılarında daha fazla öznel bakış açısı kullanımı ile ilişkilendirilmiştir.

Lise düzeyinde aynı analiz gerçekleştirilmiştir. Son model anlamlı bulunmuştur, $F(11,243) = 5.21$, $p < .001$. Özetle, Zaman 1'de çocuklar tarafından daha fazla öznel bakış açısı kullanımı ($\beta = .42$, $SE = .08$, $p < .001$), Zaman 2'de çocukların olumsuz anılarında daha fazla öznel bakış açısı kullanımı ile ilişkilendirilmiştir.

Zaman 1'deki Faktörlerin Zaman 2'de Anı Hatırlama Yaşı Üzerindeki Etkisi: Regresyon Analizleri

Zaman 2'de çocukların olumlu anılarda bildirdiği anı yaşını etkileyen Zaman 1 faktörlerini belirlemek amacıyla hiyerarşik regresyon analizi yürütülmüştür.

İlkokul düzeyinde, 1. adımda Zaman 1'de annelerin ve çocukların bildirdiği anı yaşları ile annelerin feminenlik ve maskülenliği modele dahil edilmiştir. Model anlamlı bulunmuştur, $F(4,197) = 3.67$, $p = .007$. 2. adımda çocukların sınıf düzeyi, annelerin eğitim durumu, annelerin algılanan SES'i ve coğrafi bölge eklenmiş ve model anlamlı bulunmuştur, $F(8,193) = 6.83$, $p < .001$. 3. adımda çocukların yaşı ve cinsiyeti eklenmiş ve model daha da güçlenmiştir, $F(10,191) = 6.11$, $p < .001$. 4. adımda Zaman 2'de annelerin bildirdiği anı yaşı eklenmiş ve model anlamlı bulunmuştur, $F(11,190) = 6.39$, $p < .001$. Özetle, çocuğun Zaman 1'deki bildirdiği anı yaşı ($\beta = .23$, $SE = .08$, $p = .002$), annenin eğitim düzeyi ($\beta = .38$, $SE = .12$, $p = .001$), coğrafi bölge ($\beta = -.69$, $SE = .34$, $p = .042$) ve annenin Zaman 2'de bildirdiği anı yaşı ($\beta = .04$, $SE = .02$, $p = .008$), olumlu anılarda bildirilen anı yaşını etkilemiştir. Özellikle, Zaman 1'de çocukların ve Zaman 2'de annelerin daha yüksek bildirdiği anı yaşları, annelerin daha yüksek eğitim düzeyleri ve kırsal bölgelerde yaşayan çocuklar, olumlu anıları için daha yüksek yaş bildirmiştir.

Ortaokul düzeyinde aynı analiz gerçekleştirilmiştir. Son model anlamlı bulunmuştur, $F(11,371) = 5.19$, $p < .001$. Özetle, Zaman 1'de çocuğun bildirdiği anı yaşı ($\beta = .20$, $SE = .05$, $p < .001$) ve annenin eğitim düzeyi ($\beta = .25$, $SE = .11$, $p = .020$), Zaman 2'de çocuğun bildirdiği anı yaşını etkilemiştir.

Lise düzeyinde aynı analiz gerçekleştirilmiştir. Son model anlamlı bulunmuştur, $F(11,242) = 4.45$, $p < .001$. Son adımda, Zaman 1'de çocuğun bildirdiği anı yaşı ($\beta = .31$, $SE = .07$, $p < .001$), Zaman 2'de çocukların olumlu anılarda bildirdiği anı yaşını etkilemiştir.

Zaman 1'deki Faktörlerin Zaman 2'de Bildirilen Anı Yaşı Üzerindeki Etkisi: Olumsuz Anılar için Regresyon Analizleri

İlkokul düzeyinde, Zaman 2'de çocukların olumsuz anılarda bildirdiği anı yaşını öngören Zaman 1 değişkenlerini belirlemek amacıyla hiyerarşik regresyon analizi gerçekleştirilmiştir. 1. adımda Zaman 1'de annelerin ve çocukların bildirdiği anı yaşları ile annelerin feminenlik ve maskülenliği modele dahil edilmiştir. Model anlamlı bulunmuştur, $F(4,197) = 2.78$, $p = .028$. 2. adımda çocukların sınıf düzeyi,

annelerin eğitim durumu, annelerin algılanan SES'i ve coğrafi bölge eklenmiş ve model anlamlı bulunmuştur, $F(8,193) = 3.00$, $p = .003$. 3. adımda çocuk yaşı ve cinsiyeti eklenmiş ve model anlamlı bulunmuştur, $F(10,191) = 2.60$, $p = .006$. 4. adımda Zaman 2'de annelerin bildirdiği anı yaşı eklenmiş; ancak bu son adım istatistiksel olarak anlamlı bulunmamıştır, $F(11,190) = 2.35$, $p = .010$. Özetle, Zaman 1'de çocukların daha yüksek bildirdiği anı yaşı ($\beta = .28$, $SE = .09$, $p = .003$) ve annelerin daha yüksek eğitim düzeyi ($\beta = .34$, $SE = .14$, $p = .016$), olumsuz anılarda bildirilen anı yaşının öngörücüsü olarak anlamlı bulunmuştur.

Ortaokul düzeyinde aynı analiz gerçekleştirilmiştir. Son model istatistiksel olarak anlamlı bulunmuştur, $F(11,371) = 7.00$, $p < .001$. Özetle, Zaman 1'de daha yüksek bildirilen anı yaşı ($\beta = .29$, $SE = .06$, $p < .001$), annenin daha yüksek feminenlik düzeyi ($\beta = .70$, $SE = .31$, $p = .022$) ve daha yüksek sınıf düzeyi ($\beta = 1.23$, $SE = .38$, $p = .001$), Zaman 2'de bildirilen olumsuz anılardaki anı yaşının daha yüksek olmasını öngörmüştür.

Lise düzeyinde aynı analiz gerçekleştirilmiştir. Son model istatistiksel olarak anlamlı bulunmuştur, $F(11,243) = 9.70$, $p < .001$. Özetle, Zaman 1'de daha yüksek bildirilen anı yaşı ($\beta = .47$, $SE = .06$, $p < .001$) ve daha düşük annenin maskülenlik düzeyi ($\beta = -.93$, $SE = .34$, $p = .007$), Zaman 2'de bildirilen olumsuz anılardaki anı yaşının daha yüksek olmasını öngörmüştür.

Tartışma

Anne Cinsiyet Rolü Özelliklerinin Çocuk Cinsiyet Rolü Özellikleri Üzerindeki Temel Bulguları

Elde edilen bulgular, annelerin maskülenliğinin, okulun erken dönemlerinde çocukların maskülenlik ve feminenlik gelişimini öngördüğünü ve bu etkinin çocuklar lise düzeyine ulaştıkça muhtemelen azaldığını göstermektedir. Çocuklarin yaşı arttikça, sosyal çevrenin cinsiyet rolü gelişimini giderek daha fazla şekillendirdiği ve böylece anne özelliklerinin etkisinin azaldığı gözlemlenmektedir. Ayrıca, anne maskülenliği, çocuk maskülenliğinin gelişiminde kritik bir rol oynamakta olup, bu

etki kız çocuklarında erkek çocuklarına kıyasla daha belirgin görünmektedir. Kızların, özellikle toplumsal beklentilerin normlarına farklı cinsiyet özellikleri ifadelerine karşı annelerinin gösterdiği cinsiyet özelliklerine daha duyarlı olabileceği düşünülmektedir.

Bu analiz, çalışmanın birinci hipotezini test etmeyi amaçlamıştır: annelerin maskülenlik ve feminenlik düzeyleri, çocuğun maskülenlik ve feminenlik düzeyini olumlu yönde etkileyecektir. Daha spesifik olarak, anne maskülenliği çocuğun maskülenliğini, anne feminenliği ise çocuğun feminenliğini etkileyecektir. Ancak bulgular, anne maskülenliğinin hem çocuk maskülenliği hem de çocuk feminenliği üzerinde daha güçlü bir rol oynadığını ortaya koymuştur. Anne feminenliğinin ise çocuk feminenliği üzerinde anlamlı bir etkisi bulunmamıştır.

Yapısal Eşitlik Modeli Temel Bulguları Üzerine Tartışma

Annelerin olumlu anılar modelinde, çocuk yaşı ve cinsiyetinin öznel bakış açısı kullanımı ve anı hatırlama yaşını etkileyen temel faktörler olduğu bulunmuştur. Yaş arttıkça hem öznel bakış açısı kullanımı hem de anı yaşı artmış, kız çocukları erkeklere göre daha fazla öznel bakış açısı kullanmış ve daha erken anıları hatırlamıştır. Bu durum, ebeveynlerin kızlarla daha ayrıntılı iletişim kurmalarıyla açıklanabilir. Ayrıca, ortaokul düzeyinde annenin öznel bakış açısı kullanımı çocuğun kullanımını da etkilemiştir. Anne maskülenliği veya feminenliği herhangi bir sonuç değişkeninde anlamlı bulunmamıştır. Bu bulgular, ilkokuldan ortaokula geçişte annenin modelleme ve desteğinin, çocukların sosyal deneyimlerini ve kimlik gelişimlerini şekillendirmede kritik olduğunu düşündürmektedir.

Çocuk modelinde de benzer bir desen gözlenmiş, yalnızca çocuk maskülenliği öznel bakış açısı kullanımını pozitif yönde yordamıştır. Maskülen özelliklerin bağımsızlık ve atılganlığı teşvik ederek bilişsel-duygusal dil kullanımını desteklemesi olasıdır. Bulgular, yaş ve cinsiyetin etkisini yinelemiş; annenin öznel bakış açısı kullanımı yalnızca ortaokul düzeyinde anlamlı bulunmuştur. Bu sonuçlar, ergenlikte perspektif alma üzerinde anne cinsiyet rolü özelliklerinden çok anne modellemesinin etkili olabileceğini göstermektedir.

Olumsuz Anılar

Anne modelinde elde edilen bulgular, olumlu anı koşullarıyla paralellik göstermekte; çocuk yaşı ve cinsiyeti, öznel bakış açısı kullanımı ve anı hatırlama yaşının temel belirleyicileri olarak öne çıkmaktadır. Kız çocuklarının daha ayrıntılı iletişim kurması, erken yaş anılarını hatırlamalarını ve içsel durum dili becerilerini geliştirmelerini kolaylaştırabilir. Olumsuz anı modelinde çocuk maskülenliği yalnızca lise düzeyinde anlamlı bulunmuş, anne öznel bakış açısı kullanımı hem ortaokul hem de lise düzeyinde çocuk dilini etkilemiştir. Bu durum, duygusal açıdan yoğun olayların ergenlikte anne modellemesine olan bağımlılığı artırdığını düşündürmektedir. Anne feminenliği, lise düzeyinde çocukların öznel bakış açısı kullanımını azaltmıştır; bu bulgu, ergenlerin yüksek empati ve duygusal ifadeyi bağımsızlıklarını sınırlayıcı olarak algılayabileceğine işaret etmektedir.

Çocuk modelinde, yaş ve cinsiyet yine öznel bakış açısı kullanımı ve anı yaşını artırıcı yönde etkili olmuştur. Lise düzeyinde çocuk maskülenliği, özellikle kızlarda öznel bakış açısı kullanımını artırmış; yüksek çocuk feminenliği ise erkeklerde daha yüksek öznel bakış açısı ile ilişkilendirilmiştir. Bu sonuçlar, ergenlikte cinsiyet rolü özelliklerinin esnekleşerek duygusal açıdan yoğun olaylarda daha zengin anlatım ve perspektif alma becerilerini desteklediğini göstermektedir.

Zaman 1 ve Zaman 2 Arasındaki Yol Analizi

Olumlu anilara bakıldığında, elde edilen bulgular, iki zaman noktasında çocuğun feminen özelliklerinin anneye ait duygusal ve bilişsel dili olumsuz etkilediğini göstermektedir. Ayrıca, hem çocuğun hem de annenin duygusal ve bilişsel dilinin birbirini etkilediği karşılıklı bir ilişki olduğu görülmektedir. Bunun olası bir açıklaması, annelerin çocuklarını etkilemesi kadar, çocukların da annelerini etkileme olasılığının yüksek olmasıdır. Bir diğer olası açıklama ise, zaman içinde annelerin, dil kullanımını çocuğun gelişimiyle uyumlu hale getirme eğiliminde olmasıdır. Lise düzeyinde, çocuğun maskülenliği anlamlı hale gelmekte ve maskülen özelliklerin duygusal ve bilişsel dili artırabileceğine dair bulgularımızı yeniden doğrulamaktadır.

Olumsuz anilara bakıldığında, elde edilen bulgular, çocuğun yaşı, cinsiyeti ve cinsiyet rolü özelliklerinin öznel bakış açılarını kullanımında önemli olduğunu vurgulamaktadır. Çocuğun feminen özellikleri, anneye ait duygusal ve bilişsel dili olumsuz etkilemiştir. Buna karşılık, olumsuz anilar bağlamda çocuk maskülenliği, hem anneye ait duygusal ve bilişsel dil üzerinde hem de kendi dili üzerinde olumlu etki göstermiştir. Bu durum, dilin anne ve çocuk arasında karşılıklı bir doğaya sahip olduğuna dair açıklamayı doğrulamaktadır. Bir kez daha, anneye ait dil, ortaokul düzeyinden başlayarak lise düzeyine kadar çocuk dilini etkilemiş ve anne modellemesinin etkisinin ergenlik döneminde de devam edebileceğini göstermiştir; zira bu duygusal açıdan yoğun olaylar, daha olumlu anı anlatımlarına kıyasla anne desteğine olan ihtiyacı artırabilir. Son olarak, kızların özellikle daha yüksek maskülen özelliklere sahip olanlarının, duygusal ve bilişsel dili daha fazla kullandığı görülmüştür; bu durum, iddialılık ve bağımsızlık gibi özelliklerin, optimal dil kullanımını desteklediğini göstermektedir.

Regresyon Analizlerinin Temel Bulgularına İlişkin Tartışma

Öznel Bakış Açıları

Elde edilen birleşen bulgular, kızların daha yüksek duygusal ve bilişsel dil becerileri sergilediği olumsuz anılar bağlamında daha anlamlı sonuçlar sunmaktadır. Bunun olası bir açıklaması, olumsuz olayların, kızların bu deneyimleri erkeklere kıyasla daha açık bir şekilde işlemeye sosyal olarak yönlendirildiği anlatılar üzerinde tartışma fırsatları sağlama eğiliminde olmasıdır (Fivush ve ark., 2009). Anneler, kızlarının duyguları daha derinlemesine keşfetmelerini teşvik etme eğilimindedir; böylece daha ileri düzeyde duygusal ve bilişsel dil becerilerinin gelişimini desteklerler (Reese ve ark., 2010). Anne eğitimi ve anneye ait duygusal ve bilişsel dil kullanımı, çocuk dilini olumlu yönde etkilemiştir. Daha yüksek eğitim düzeyine sahip anneler, muhtemelen daha fazla kaynak ve dilsel fırsatlarla temas halindedir ve bunları çocuklarına aktarıp modelleme eğilimindedirler (Melzi ve ark., 2011; Rowe, 2008).

Anı Yaşı

Bulgular, raporlanan anı yaşının coğrafi bölge, anne eğitimi ve annelerin toplumsal cinsiyet rolü özellikleri tarafından önemli ölçüde etkilendiğini göstermektedir.

Kentsel bölgelerde yaşayan, daha yüksek eğitim düzeyine sahip ve feminenlik düzeyi yüksek annelerin çocukları daha ileri yaşlarda anılar rapor ederken; maskülenlik düzeyi yüksek annelerin çocukları daha erken yaşlarda anılar rapor etmiştir. Daha önce belirtildiği gibi, kentsel yaşam ve yüksek anne eğitimi, annelerin daha geniş dilsel kaynaklara sahip olmasını ve bu kaynakları çocuklarına aktarmasını sağlayabilir. Toplumsal cinsiyet rolü özelliklerinin anı yaşı üzerindeki etkisine ilişkin bir olasılık, feminen özelliklere sahip olmanın her zaman daha erken anılarla ilişkili olmadığını göstermesidir. Daha yüksek ifade yeteneği ve özgüven sergileyen çocukların, erken yaşlardan itibaren anılarını düzenleme ve değerlendirme becerilerinin daha gelişmiş olması, bu bulguyu açıklayabilir.

Sınırlılıklar ve Gelecek Araştırma Yönleri

Bu çalışmanın birkaç sınırlılığı bulunmaktadır. Öz-bildirim ölçümleri, özellikle kız çocuklarında sosyal olarak kabul edilebilir yanıt verme eğilimine yol açmış olabilir. Yazılı anlatımlar, büyük ölçekli veri toplamaya olanak sağlasa da, sözlü anlatımlara kıyasla duygusal derinliği sınırlı olabilir ve katılımcı yorgunluğu yanıtları etkileyebilir. İlkokul örneklemi daha küçüktü ve küçük çocuklar bazen kısa anılar sundu. Öznel bakış açıları kodlaması bilişsel ve duygusal dili birleştirdiği için, gözlemlenen etkilerin hangi boyuttan kaynaklandığı net değildir. Gelecek araştırmalar, yüz yüze veri toplama, bilişsel ve duygusal boyutları ayırma, farklı kültürleri inceleme ve baba etkisini değerlendirme yönünde olabilir.

Güçlü Yönler, Katkılar ve Çıkarımlar

Güçlü yönler arasında Türkiye genelinde geniş bir örneklem; anne-çocuk ikili tasarımı; okul seviyeleri arasında gelişimsel karşılaştırmalar; ve nicel ve nitel yöntemlerin kombinasyonu yer almaktadır. Öznel bakış açıları kodlaması hem bilişsel hem de duygusal dili yakalamış ve cinsiyet yerine cinsiyet rolü özelliklerine odaklanmak, daha incelikli bulgular sağlamıştır.

Bulgular, anne tarafından kullanılan öznel bakış açılarının çocukların anlatı tarzını şekillendirdiğini; anne maskülenliğinin kız çocuklarının duygusal-bilişsel gelişimini

desteklediğini ve anne feminen liğinin bazen erkek çocuklarının duygusal ifadesini desteklediğini göstermektedir. Çıkarımlar arasında, ayrıntılı anı paylaşımını teşvik eden uygulamalar, anlatı temelli eğitim etkinlikleri ve okulda sosyal-duygusal öğrenim programları yer almaktadır. İlkokuldan ortaokula geçiş döneminde hedeflenmiş müdahalelerin özellikle etkili olabileceği öne sürülmektedir. Genel olarak, çalışma, anne ve çocuk cinsiyet rolü özelliklerinin birlikte otobiyografik bellek gelişimini nasıl etkilediğini ortaya koymakta ve esnek cinsiyet ifadelerini ve zengin anlatı becerilerini desteklemek için ebeveynler, eğitimciler ve politika yapıcılar için yol göstermektedir.

H. THESIS PERMISSION FORM / TEZ İZİN FORMU

(Please fill out this form on computer. Double click on the boxes to fill them)

ENSTİTÜ / INSTITUTE

Fen Bilimleri Enstitüsü / Graduate School of Natural and Applied Sciences ☐

Sosyal Bilimler Enstitüsü / Graduate School of Social Sciences ☒

Uygulamalı Matematik Enstitüsü / Graduate School of Applied Mathematics ☐

Enformatik Enstitüsü / Graduate School of Informatics ☐

Deniz Bilimleri Enstitüsü / Graduate School of Marine Sciences ☐

YAZARIN / AUTHOR

Soyadı / Surname : Kalkan İnan
Adı / Name : Fatma Şeyma
Bölümü / Department : Psikoloji / Psychology

TEZİN ADI / TITLE OF THE THESIS (**İngilizce** / English): THE IMPACT OF GENDER ROLES ON THE USE OF SUBJECTIVE PERSPECTIVES IN AUTOBIOGRAPHICAL MEMORIES IN MOTHER-CHILD DYADS: A LONGITUDINAL STUDY

TEZİN TÜRÜ / DEGREE: **Yüksek Lisans** / Master ☐ **Doktora** / PhD ☒

1. **Tezin tamamı dünya çapında erişime açılacaktır. /** Release the entire work immediately for access worldwide. ☒
2. **Tez iki yıl süreyle erişime kapalı olacaktır.** / Secure the entire work for patent and/or proprietary purposes for a period of **two years. *** ☐
3. **Tez altı ay süreyle erişime kapalı olacaktır.** / Secure the entire work for period of **six months**. ***** ☐

***** *Enstitü Yönetim Kurulu kararının basılı kopyası tezle birlikte kütüphaneye teslim edilecektir. / A copy of the decision of the Institute Administrative Committee will be delivered to the library together with the printed thesis.*

Yazarın imzası / Signature ..... **Tarih** / Date .....
(Kütüphaneye teslim ettiğiniz tarih. Elle doldurulacaktır.)
(Library submission date. Please fill out by hand.)

Tezin son sayfasıdır. / This is the last page of the thesis/dissertation.