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NARRATIVES & NURTURE: SECURE ATTACHMENT THEMES IN CHILDREN'S
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Abstract

This quantitative analysis served to explore whether secure attachment and secure attachment related themes are present in children's picture books across cultures and to examine how the secure attachment relationship is depicted in multicultural children's literature. This study explored multicultural children's picture books centered around family through the lens of attachment theory. It utilized secure attachment priming and secure base scripts as an analytic tool to create a coding system to explore the secure attachment relationship from a narrative, thematic, and visual point of view. Additionally, it is considered the representation of caregivers across cultures. Research on the nuances of the secure attachment relationship across cultures and in children's picture books is lacking. Research supports the argument that secure attachment can be strengthened through quality reading time with parent and child, highlighting the importance of exploring the content of the books that may be present during reading time. 250 children's picture books (appropriate for ages 3-5) from 5 different cultures (Asian, Black, Hispanic, Native, and White) were randomly selected, analyzed, and how the secure attachment relationship was depicted in the books was coded. The findings revealed that there was no significant difference between the average secure attachment score of each cultural group, indicating that the secure attachment relationship is consistently present. When looking at the categories, the data reveals that there is a significant difference between in secure attachment words between Black culture when compared to Asian, Hispanic, and White culture. The results of this study expand research surrounding the representation of the secure attachment relationship across cultures and begins to lead research toward creating more sophisticated and nuanced frameworks for measuring the attachment relationship.

Keywords: secure attachment relationship, multicultural, children's picture books

Table Of Contents

PREFACE

Abstract	IV
Introduction	1
Review of the Literature	4
Basic Premises of Attachment Theory	4
Classification of Attachment Relationships	5
<i>Secure Attachment</i>	5
<i>Insecure-Anxious Attachment</i>	5
<i>Insecure-Avoidant Attachment</i>	6
<i>Insecure-Disorganized Attachment</i>	6
Comparison of Attachment and Non-Attachment Relationships	7
Attachment and Culture	7
<i>Universality Argument of Attachment</i>	9
<i>Cultural Groups and Attachment</i>	11
<i>Cultural Representation in Children's Picture Books</i>	15
Foundations for Coding	16
<i>Sensitivity and Secure Base Hypothesis</i>	16
<i>Secure Base Scripts</i>	17

Table 1	18
<i>Internal Working Models Hypothesis</i>	19
<i>Attachment Priming</i>	19
The Current Study	21
Methodology	23
Research Design.....	23
Research Procedure.....	23
Data Analysis	25
Figure 1.	27
Figure 3.	29
Results.....	30
Table 2.	31
Table 3.	31
Table 4.	32
Table 5.	33
Table 6.	34
Table 7.	35
Table 8.	35
Table 9.	36
Table 10.	37
Discussion.....	38

Descriptive Attachment Patterns.....	38
Variations in Attachment Representations Across Cultural Groups.....	40
Limitations	43
Implications for Practice and Policy	47
Conclusion	48
References.....	49
Appendix.....	58
Figure 4	58
Figure 5	59
Figure 6	59
Figure 7	60
Table 11	60

Introduction

Drawn from evolutionary psychology, attachment theory continues to be one of the longest-standing and most influential psychological theories, having undergone only minimal changes since its conception in the mid-to-late 20th century (Bowlby, 1979; Cassidy et al., 2013; Keller, 2022). Attachment theory encompasses a significant portion of an individual's development during their early stages of life. Through the combined efforts of the caregiver and child, they develop a secure attachment relationship that rests upon the trust that the caregiver will be available to support the child in times of need (Levy et al., 2011). The consequential secure attachment relationships fostered between the caregiver and child create strong foundations upon which future social and relational skills can be built in the child (Newman & Newman, 2023).

The secure attachment relationship can be found and nurtured in a variety of different ways through the shared connections between a child and a caregiver. In the context of family, two such ways are through the act of shared reading time and through the content presented in children's picture books. Research highlights that more shared reading time increases the secure attachment relationship between child and caregiver and provides avenues for a caregiver to scaffold a child's learning (Bus & van Ijzendoorn, 1997; Jimenez et al., 2019; Oppliger & Davis, 2016; Pergar & Hadela, 2021). The close connection between the caregiver and the child while reading, combined with the attentiveness and thoughtful reflection of the content of children's picture books, creates a strong foundation for strengthening secure attachment relationships. As an underlying foundation for this study, it is important to explore the relationship between the content of children's picture books and development to gain a deeper understanding of the implications of this research and their connections to the secure attachment relationship.

Children's picture books can be powerful messengers for development and learning, and how the content is presented matters (Oppliger & Davis, 2016; Strouse et al., 2018). For example, research has long supported that children's picture books can be beneficial in expanding children's understanding of societal norms and expectations and aid in the development of social-emotional and relational skills (Oppliger & Davis, 2016). Fortifying early childhood literacy also creates opportunities to practice difficult situations in safe learning environments and provides an avenue for children to be exposed to different cultures and people (Hartsfield & Kimmel, 2021; Oppliger & Davis, 2016). Children's picture books present ample learning opportunities (Bus & van Ijzendoorn, 1997; Hartsfield & Kimmel, 2021; Jimenez et al., 2019; Oppliger & Davis, 2016; Pergar & Hadela, 2021) and through the combination of scaffolding and the content embedded within children's picture books, they can become a powerful resource.

A wide array of studies has been conducted on the content of many different genres of children's picture books, yet research on the presence of the secure attachment relationship in children's picture books is scant. Some research has explored the secure attachment relationship in specific books (e.g., the parent-child attachment relationship in the *Secret Garden*) or book categories, (e.g., books read to children before bedtime) (Galbraith, 1998; Marlina, 2024), yet, the majority of children's literature is overlooked through the attachment theory lens. Even more so when a cultural component is added. While the attachment relationship is generally considered to be a universal construct, cultural differences often must be "accounted for" when examining the secure attachment relationship across cultures (Mesman et al., 2016).

However, what the secure attachment relationship actually looks like in children's literature across various cultures is understudied. As picture books reflect the societal

expectations, norms, and social skills of the specific culture from which it was written, it is possible that certain components of the secure attachment relationship presented in children's picture books may differ from culture to culture. Thus, this current quantitative study explored the representation of the secure attachment relationship by investigating the content of children's picture books (suitable for ages 3-5) through the lens of attachment theory across cultures. The results of this study have bearings on methods of strengthening the caregiver-child secure attachment relationship and provide new insights into cultural differences in the presentation of the secure attachment relationship.

Review of the Literature

Basic Premises of Attachment Theory

Attachment theory illustrates the relationship curated through the system of signals between an infant and caregiver through the responsive care to the child's needs (Bowlby, 1979; Levy et al., 2011; Newman & Newman, 2023). With continued responsiveness, the caregiver becomes a 'secure base' from which the individual can rely on to safely explore their physical or relational environments, as the individual has learned that they can trust the caregiver to respond in times of distress (Levy et al., 2011). Bowlby's attachment theory was later adopted by Ainsworth (Ainsworth et al., 2015; Levy et al., 2011), who expanded the theory towards examining the nuances and classification of the infant-caregiver attachment relationship through laboratory experiments, which she deemed the Strange Situation.

The Strange Situation allows researchers to classify a child's attachment relationship by examining children's behaviors in response to specific stimuli (Van Rosmalen et al., 2015). For example, in the Strange Situation procedure, a child is exposed to a new environment (e.g., a playroom) alongside their caregiver. A stranger enters the environment and the caregiver exits, leaving the child with the stranger. The caregiver and stranger continue to return and leave at different intervals, creating a stressful situation for the child. The behaviors that are exhibited by the child—particularly in how they respond to the caregiver when they return—are observed. Researchers specifically look for how the child expresses trust towards the caregiver after a stressful situation and the length of time the child needs before returning to the environment (Van Rosmalen et al., 2015). Children who are quicker to trust and more likely to return to exploring the environment are usually classified as securely attached (Van Rosmalen et al., 2015). Through Ainsworth's research, three different categories of attachment were established:

“...secure, insecure-anxious, and insecure-avoidant” (Levy et al., 2011, p. 194). Later, a fourth category—insecure-disorganized attachment—was developed (Main & Solomon, 1990; Solomon et al., 2017). Taken together, an individual’s attachment classification provides insight into how one interacts with, takes in, and responds to environmental stimuli, and has a bearing on an individual’s social competence, which lays the foundation for future relationships (Newman & Newman, 2023).

Classification of Attachment Relationships

Secure Attachment

The most common attachment category—secure attachment—constitutes approximately 50% of the general population worldwide, even when cultural and child-rearing differences are accounted for (Mesman et al., 2016). Securely attached individuals show higher levels of resilience, adaptive capabilities, curiosity, social competence, and self-control, along with correlations to higher levels of empathy as a result of the fostered trust and knowledge that help and support will be provided in times of need (Cassidy et al., 2009; Newman & Newman, 2023; Stern & Cassidy, 2018). Further, as cited in Cassidy et al.’s (2009) research, these individuals also show both stronger emotional regulation and self-efficacy, in that they possess the knowledge that they know they are capable of effectively responding to difficult emotions and situations when they arise—which consequently coincides with the previous theories surrounding the necessary skills that are needed while navigating difficult literature during shared reading.

Insecure-Anxious Attachment

Individuals categorized as insecure-anxiously attached often experienced inconsistent care or availability from their attachment figures during infancy (Bowlby, 1969, 1984; Campbell

& Marshall, 2011). As a result, they often exhibit higher levels of neuroticism, obsession, and rumination (Cassidy et al., 2009). This can manifest itself into adults who are more dependent on others and who require higher levels of reassurance for fear of being abandoned (Campbell & Marshall, 2011).

Insecure-Avoidant Attachment

When an individual's—especially an infant's—needs are not adequately responded to, one may develop an insecure-avoidant attachment style as a means of dealing with their overlooked pleas for attention, lack of help with distress, or even as a defense mechanism to evade punishment (Ainsworth et al., 1978; Edelstein & Shaver, 2004). Edelstein contends “avoidant infants have learned to ‘deactivate’ their attachment systems as a defensive strategy to prevent further distress” (p. 3) and, resultingly, will not turn to their attachment figure for help. These individuals often show lower levels of trust later in life and are more averse to emotional and physical intimacy and relationships (Edelstein & Shaver, 2004; Fraley & Shaver, 1998; Ainsworth et al., 1978).

Insecure-Disorganized Attachment

The insecure-disorganized attachment relationship is unique in that it arose after researchers realized that some infant behaviors did not follow the patterns of the attachment relationship originally outlined in the Strange Situation—insecure-anxious, insecure-avoidant, or secure (Granqvist et al., 2017). Infants who were classified as insecure-disorganized showed behaviors that were consistent with fear, disorientation, or conflict often stemming from abuse and may face difficulties with social-emotional development later in life (Granqvist et al., 2017).

Comparison of Attachment and Non-Attachment Relationships

All relationships have a *backing* in attachment, but not all relationships are attachment relationships. The attachment relationship can, and often does, bleed over into other relationships that an individual may develop, as the attachment relationship uniquely sets the foundation for an individual's social and relational capabilities. The trust, resilience, and empathy that were developed during early childhood as a result of an individual's secure attachment relationship to their caregivers play a role in how individuals conceptualize how others will respond to them (Cassidy et al., 2009; Newman & Newman, 2023; Stern & Cassidy, 2018; Waters & Waters, 2006). Individuals may develop secure attachment relationships with multiple caregivers, parents, teachers, and extended family with whom a child often interacts (Dagan & Sagi-Schwartz, 2021). This, however, is dependent on the level of contact and involvement they exhibit towards the child. Secure attachment relationships revolve around deep meaningful connections, often rooted in safety, that are fostered during early development. The relationships that an individual creates with less involved family or friends is often contingent on those early attachment relationships, but occupies a different classification (e.g., friendship, not secure attachment). Understanding which relationships are classified as secure attachment relationships has bearings on how caregivers were assessed in children's picture books throughout this particular study.

Attachment and Culture

Culture as a Context of Attachment Relationships

Culture can be defined in a variety of ways and explored through multiple different lenses (Spencer-Oatey & Franklin, 2012). This study takes from Triandis' (1993) definition of culture: "Shared attitudes, beliefs, categorizations, expectations, norms, roles, self-definitions, values,

and other such elements of subjective culture found among individuals whose interactions were facilitated by shared language, historical period, and geographic region” (p. 156). In this study, this study chooses to focus on culture through the lens of race and ethnicity which characterize people “based on having a shared culture” (“Race and Ethnicity”, 2023). It is important to note that using monolithic terms to describe the ideas of race and ethnicity can be problematic, however, due to constraints on how children’s picture books are tagged in the library database (e.g., under Asian, Black, Hispanic, and Native American), more monolithic terms were used for ease and clarity. It would be prudent for future research to explore the secure attachment relationship by breaking down the cultural groups into smaller, more meaningful groups to more closely examine the relationship. Within the confines of this study, culture is specifically broken down into the racial and ethnic groups Asian, Black, Hispanic, Native and White and considers how the ideas of collectivism, individualism, Westernization, non-Westernization, family structures, and family values all play a role on the secure attachment relationship.

Looking broadly, collectivism and individualism explore how individuals view others and the role of society in their environment (Triandis, 1993). Collectivist cultures (e.g., Asia) place a higher emphasis on relationships compared to individualistic cultures (e.g., the United States) (Guess, 2004). In other words, individualism is centered around “I, me, and mine” whereas collectivism is centered around “us, we, and ours” (Triandis, 1993, p. 156). Research indicates that collectivism and individualism are linked to parenting practices (Kotlaja, 2020) and are also correlated to an individual’s attachment. Some research indicates that individuals in collectivist cultures show higher levels of insecure attachment (but not higher than secure attachment) due to the fear of rejection and dependence placed on their larger surrounding social groups (Agishtein & Brumbaugh, 2013; Mesman et al. 2016). These results, however, could

perhaps be due to exploring the attachment relationship from a Westernized point of view, as their particular study used a standardized attachment survey. Despite this, a fair amount of research on attachment across cultures with the consideration of collectivist and individualist cultures report similar findings (Agishtein & Brumbaugh, 2013; Guess, 2004).

The cultures explored within this study (Asian, Black, Hispanic, Native, and White) have been deemed “Westernized” as they were extracted from the most common cultural groups within the United States. Further, the representation of the cultural groups was explored from books that were published in the United States. However, to broaden the scope of this research and ensure that the secure attachment relationship is accurately explored across cultures, considerations from non-Westernized cultures (e.g., family systems, collectivism, family roles, etc.) were considered and implemented into the coding scheme. It is also worth noting that categorizing the cultures explored in this study into rigid groups (Asian, Black, Hispanic, Native, and White) overlooks the nuances of each culture. Some niche cultural and child-rearing differences may be overlooked due to the standardization of attachment codes and due to the Westernized perspective from which the codes were derived. Future research is needed to more closely explore the attachment relationship from a non-Westernized viewpoint for each culture.

Universality Argument of Attachment

Despite the benefits of the secure attachment relationship, research does affirm that a person’s attachment style is influenced by their environment (Mesman et al., 2016). In this regard, the studies mostly conducted in Western societies found that the secure attachment relationship had the most benefits for overall development. However, attachment patterns do not develop in isolation; rather, they are shaped by the broader social, cultural, and environmental contexts in which children are raised. Caregiving practices, beliefs about independence and

interdependence, and expectations for children's behavior vary widely across cultures, which may influence how attachment relationships are formed and expressed. However, because much of the existing attachment research has relied on data from Western populations, it remains unclear whether the benefits and expressions of secure attachment are similar in non-Western cultural contexts. Therefore, it is important to consider how culture may influence attachment and caregiver–child relationships.

Contemporary research has revealed that the general trend of attachment is fairly consistent across cultures, with almost every country in the world showing consistency with secure attachments being the leading category for individuals, as “both mothers and babies are equipped to elicit not one set of interactions but a wide range of potential relationships compatible with specific environmental requirements” (Mesman et al., 2016). The evolutionary backing of attachment theory enables different attachment relationships to be more or less beneficial for an individual depending on what the environment and culture requires (Mesman et al., 2016). Mesman et al.'s (2016) research exploring the attachment relationship in non-Westernized countries elaborates,

It is assumed to be most adaptive to develop an attachment pattern that allows for exploration of the environment from the security of a safe haven in case of distress.

However, if a cultural niche is harsh and socioeconomic circumstances are extremely stressful for parents, infants may be prepared by their parents to develop, for example, an avoidant attachment pattern to cope with socioeconomic stresses. In such a niche, the avoidant attachment pattern may well be normative” (p. 791).

Even Bowlby contends that “the attachment bond is influenced by a complex ‘long history of interpersonal relations within... the values and practices of her [the mother's] culture”

(as cited in Agishtein & Brumbaugh, 2013, p. 387). More research needs to be done that more closely explores how multiple caregivers, environmental factors, and child-rearing differences impact attachment across cultures in the United States.

While attachment relationships adapt to environmental and cultural requirements, this does not invalidate the overall universality of the secure attachment relationship. This study combines both perspectives by proposing that secure attachment is the dominant attachment pattern across cultures while recognizing that the expression of the secure attachment relationships differs depending on cultural context. When cultural differences were accounted for, research suggests “a balance between universal trends and contextual determinants” (Mesman et al., 2016, p. 808), supporting the universality of attachment theory, while acknowledging cultural variation in how the secure attachment relationship is represented. For example, some cultures may hold their babies less or have multiple caregivers, but their overall care is still representative of secure attachment (Mesman et al., 2016). The parameters for the current study explore the secure attachment relationship differences between cultures in the United States. As such, standardized attachment measures with the secure attachment relationship being the “ideal” were used. Further, a more Westernized understanding of the secure attachment relationship was used as the foundation for measurement; however, room was left for cultural differences and nuances to be considered.

Cultural Groups and Attachment

The current study explores differences in attachment presentation across multiple cultures, including Asian, Black, Hispanic, Native, and White. There has been a fair amount of research on the attachment relationship worldwide, yet when broken down into individual groups, Asian, Black, Hispanic, and Native individuals (especially in the United States) are

overlooked. Research indicates that the effects of racism have an impact on child rearing and adaptation, especially through the lens of attachment theory, as one of the leading roles of the attachment relationship is protection from threats (Stern et al., 2023).

Asian and Black cultural groups have more contemporary research on the attachment relationship compared to the other cultural groups (excluding White). We can turn to research on parenting and child-rearing differences in Asian culture as a foundation for exploring attachment theory. As a collectivist community, some researchers argue higher levels of insecure attachment relationships (compared to White) should be expected due to the higher value set upon the idea of dependence (Guess, 2004). Other studies argue that sensitivity in parenting is shown differently in Asian cultures. Asian parents are more likely to anticipate their children's needs before they arise, and their parenting revolves more closely around "emotional closeness" and regulation (Rothbaum et al., 2000). Mesman et al.'s (2016) research indicates that many of the previous studies on attachment in Asian countries were flawed. The ones that were deemed adequate showed high levels of both secure and insecure attachment relationships, with secure attachment still coming out on top.

Previous research on the attachment relationship in Black and African American families has often reported lower attachment security compared to White individuals, but more contemporary research indicates that when socioeconomic inequalities were accounted for, these differences disappeared (Stern et al., 2023). Stern et al. (2023)'s study indicates that the previous understanding of "sensitivity" (e.g., sensitivity hypothesis)—which they argue is culturally dependent—may not be as relevant when examining the secure attachment relationship in Black families. Instead, "other forms of caregiver protection" (p. 168)—perhaps similar to the

emotional closeness or anticipatory nature of responding to needs seen in Asian culture—may be more useful.

Further, research has indicated that there has been an increase in Black picture books (“The Diversity Gap in Children’s Book Publishing,” 2018) and the themes have begun to show a shift towards representing stories that revolve around familial love, Black joy, and everyday life (Bishop, 2012; Lotlikar, 2020; Millner, 2026). Bishop’s (2012) research also indicates that Black picture books have shown higher levels of verbally representing cultural customs. This study looks to explore the representation of the secure attachment relationship in children’s books, specifically in books that have a familial theme, which Black picture books reportedly show higher levels of. Taken together, we should expect to see some differences in the frequency of our word and visual categories representation of the secure attachment relationship, particularly in the areas surrounding the verbalizing of familial love due to the higher levels reported in Black children’s picture books. Research indicates that more often than not, certain cultural nuances are overlooked, or incorrect weight is applied to certain parenting practices when examining what constitutes the secure attachment relationship (Stern et al., 2023). Despite discrepancies, secure attachment is considered to be the most prevalent attachment category for both Asian and Black communities (Mesman et al., 2016; Stern et al., 2023).

Due to a lack of contemporary research when exploring the other cultural groups—Hispanic and Native—there is no direct evidence to support the claim that differences in the secure attachment relationship should be expected. However, using research from other cultural groups (e.g., Asian and Black), and Mesman et al.’s (2016) broader research on the attachment relationship across 27 different countries (including Mexico and South America) inferences can be made. It is assumed—akin to Asian and Black groups—that the overall attachment

relationship is expected to be secure, but nuances in how the secure attachment relationship is represented will differ. For example, research indicates that in Hispanic culture, there is a higher prevalence of extended family (Howes et al., 2011), meaning that the caregiving relationship and which caregiver is represented may differ. Regardless of which caregiver is represented, it is expected that the relationship presented will still be secure.

This possibility of variation in the secure attachment relationship underscores the importance of considering both universality and culture-specific patterns. One supporting line of evidence comes from research on emotional expression. The idea of emotional expression—fostered by Darwin—believed that all people, “regardless of race or culture, possess the ability to express some emotions in exactly the same ways, primarily through their faces” (Matsumoto, 2013, p. 263). Yet again arguing for universality, Darwin faced significant backlash for this theory, especially from anthropologists, who argued that differences in emotional expression were often seen cross-culturally. Both proved to have some backing, and future research verified that cross-culturally, people in laboratory-controlled experiments can recognize the facial expressions for “anger, disgust, fear, happiness, sadness, and surprise” (Matsumoto, 2013, p. 264). Even children as young as 2-3 months can recognize the emotional expression of happiness and sadness (Karabuschenko et al., 2016).

This directly informs attachment research, particularly in attachment priming studies that expose individuals to visuals of positive emotional expressions from the caregiver to the infant (e.g., a mother smiling while holding her baby). Given that all of the picture books from this study are from a Western region, it should be assumed that individuals of different cultures (within the United States) will be able to recognize the emotional component of the attachment relationship. To account for possible differences, the systematic coding has been grouped into

different categories, each highlighting a different aspect of the secure attachment relationship and secure attachment related themes, allowing for cultural differences in children's picture books to result in higher levels of a specific category.

Cultural Representation in Children's Picture Books.

“Picture books are written artifacts that convey cultural messages and values about society and help children learn about their world” (Koss, 2015, p. 32). The niche differences in social expectations, norms, family, and the environment are portrayed differently in picture books depending on the culture from which they originated. Children's books present a unique opportunity to engage with one's cultural identity while also being exposed to the cultural identities of others, especially when done during shared reading time (Strouse et al., 2018). Caregivers can help guide children's development and understanding of social constructs and act as facilitators to further broaden their understanding of their own culture and develop their social cognition skills. As previous research indicates that the secure attachment relationship differs depending on caregiving differences (Mesman et al., 2016), we should expect to see the secure attachment relationship depicted differently across children's picture books as well. While this current analysis is using standardized coding derived from secure attachment priming and secure base script research, the prevalence of certain attachment relationship cues may differ depending on the culture. Further, the ways in which the attachment relationship is depicted may differ across cultures as well.

Taken together, the literature reveals that there is a gap in contemporary research on cultural differences in the attachment relationship. What the literature does tell us, however, is that when environmental and cultural differences are accounted for and set against the standardized Western views of attachment, secure attachment is still the leading relationship

category. This current study does use a Westernized view of attachment as the foundation and explores children's books of different cultures within the United States. To account for cultural differences, it goes beyond the sensitivity hypothesis, incorporating aspects of the secure base hypothesis, secure base priming, and secure base scripts. Additionally, the coding system for this study also includes open categories to allow coders to manually capture culture-specific expressions of the secure attachment relationship that may fit into the fixed codes.

Foundations for Coding

This study explores how the secure attachment relationship and secure attachment related themes are represented in children's picture books (aged 3-5) across cultures. To more deeply understand the nuances, the secure attachment relationship along with secure attachment related themes were broken into categories: words, themes, visuals, and caregiver representation. Each of these categories is further broken into subcategories and indicators (see Figures 1-3) based on the different hypothesized and understanding of the secure attachment relationship.

Sensitivity and Secure Base Hypothesis

There are several approaches to looking at the secure attachment relationship; the most prominent of which is the sensitivity hypothesis, which argues that secure attachment relationships are dependent on the sensitivity and responsiveness of a caregiver to a child's signals (Mesman et al., 2016). When examining children's picture books, this may arise through the depiction of a caregiver quickly responding to a distressed child or recognizing that a child is distraught. The sensitivity hypothesis is at the forefront of many studies on attachment worldwide, despite the fact that it presents a Westernized view of what the attachment relationship should look like (Tkaczyk et al., 2025). Contemporary literature on the attachment relationship almost always uses the sensitivity hypothesis as the main foundation from which to

study the caregiver-child relationship. Yet, care must be taken when using this approach as sensitivity in caregivers can present itself differently depending on the culture being examined (Rothbaum et al., 2000; Stern et al., 2023). The secure base hypothesis is tightly intertwined with the sensitivity hypothesis and argues that infants see their caregivers as a secure base from which to explore their environment. The child understands that their caregiver will protect them from harm that may present itself in the environment, so the infants are more likely to explore, knowing they have a safe base to return to (Rothbaum et al., 2000). The sensitivity and secure base hypothesis lay the foundation for many of the indicators in thematic and visual categories. Further, it provides an understanding of the characteristics that we should expect from primary caregivers.

When examining the sensitivity hypothesis, most of the research on caregiving is centered around mothers (Mesman et al., 2016). Although a mother is often considered as a primary caregiver, other family members also serve an important role. It is important to examine the role of additional primary caregivers—such as the father, grandparents, or even aunts and uncles—in fostering the secure attachment relationship across cultures. Different cultures place different emphasis on the role of extended family members as primary caregivers (Howes et al., 2011) so we should expect to see differences in the representation of caregivers across cultures.

Secure Base Scripts

Secure base scripts and attachment theory are tightly intertwined and illustrate the mental representations and conceptions that an individual has as a result of their attachment relationships. Secure base scripts illustrate the mental representation of the secure base hypothesis (Dagan et al., 2021). Through the repeated answering of bids by a caregiver to an infant, the infant will grow to expect that their caregiver will routinely respond to their needs

(Waters & Waters, 2006). Waters and Waters' (2006) research on secure base scripts further illustrates this concept as presented in Table 1, and contend

Individuals who have had consistent and coherent secure base support in infancy and childhood will have knowledge of this secure base script and ready access to it in all their secure base interactions...Once established, the secure base script will underpin generalized expectations about close relationships, even if a specific partner does not behave as expected. Most importantly, from the point of view of assessment, they will use the script to organize attachment-related narratives and selectively retrieve script-consistent events (p. 188).

Table 1

“Key Elements of the Secure Base Script” (Waters & Waters, 2006).

1. A child (or infant) and mother (or two adult attachment partners) are constructively occupied.
2. They are interrupted by an event or another actor. The infant (or one adult) is distressed.
3. There is a bid for help.
4. The bid for help is detected and help is offered.
5. The offer of help is accepted.
6. The help is effective in overcoming the difficulty.
7. The help also includes effective comforting and affect regulation.
8. The pair return to (or initiate new) constructive interaction.

The relationships and interactions described in Waters and Waters' (2006) research effectively highlight many of the specific criteria for the secure attachment relationship and the differences between the secure attachment relationship and other relationships (e.g., friendship). Additionally, it provides helpful descriptors—that will become the backing for certain aspects of coding in this specific study (e.g., the visual and thematic subcategories)—for examining secure attachment in children's picture books.

Internal Working Models Hypothesis

The idea of internal working models also presents a different, but related understanding of attachment relationships and establishes the framework for much of the thematic subcategory. Internal working models act as processors through which individuals understand information about themselves and the world around them (e.g., how a caregiver should behave) (McLeod, 2025; Noam & Fischer, 2013; Obegi & Berant, 2010). Children's picture books may reflect these internal working models by depicting situations in which a child anticipates—perhaps through their internal monologue—consistent caregiver support. Individuals who are categorized as securely attached show more flexible and well-organized internal working models, and the ways in which individuals' internal working models operate have direct effects on both themselves and the world around them (Noam & Fischer, 2013).

Attachment Priming

Secure attachment priming research provides another avenue with operational criteria with which to explore attachment in children's picture books and establish the word category for this study. Priming individuals to feel a certain way has been studied before. Charles-Sire et al. (2012) describe how some past experiments have discovered that when individuals were primed to think about the elderly, their walking speed decreased when leaving the experiment. Secure attachment priming is similar in that researchers can prime individuals (often adults) into secure attachment categories through the exposure to secure attachment stimuli (Gillath et al., 2008). In exposing individuals to different secure attachment-related themes—love, safety, hugs, etc.—researchers can prime individuals into the secure attachment category for short periods of time—usually only a few minutes (Gillath et al., 2008). Interestingly, some individuals who experience attachment priming, especially those who are repeatedly exposed to secure stimuli, report

positive aftereffects long after the conclusion of the exposure to said stimuli (Gillath et al., 2008). Despite these findings, very little research has strayed from attachment priming in adults to explore the benefits of attachment priming in children.

A study conducted by Stupica et al. (2019) explored such an idea through their examination of ninety school-aged children (6-7-year-olds). Children of differing attachment categories were exposed to multiple stimuli aimed at increasing their secure internal working models. Interestingly, research indicates that individuals who fall into attachment categories that are not secure can still be primed into secure attachment categories (Mikulincer & Shaver, 2001). The results of their study indicated that children who were exposed to secure attachment priming showed lower levels of subliminal fear (e.g., fight or flight) and higher levels of happiness (Stupica et al., 2019). Despite these findings, their research used a very Westernized and non-diverse sample, in that about half of the participants were white middle-class children. Future research on this topic is necessary in order to reveal cultural differences in the presentation of secure stimuli. To account for this gap in this study, the groupings of codes leave areas open (e.g., an “other” category) to account for differences in how attachment may present itself cross-culturally.

The ways in which researchers study attachment priming mirror how an individual may comprehend a picture book. Researchers often use a combination of words and pictures to “put” someone into a specific attachment category. The individual is often instructed to reflect on a short paragraph or image that describes or illustrates situations similar to those described in secure base scripts. For example, Green and Campbell’s (2000) research on secure attachment priming used the following sentences to securely prime individuals: “John and Betty trust each other completely,” “Tom felt comfortable sharing his feelings with his wife”, and “Jean

comforted her child” (p. 456). These sentences follow a similar, simple structure that one might see in a children’s book, such as these sentences from the books *What my Daddy Loves*, *Daddy Speaks Love*, and *Love and the Rocking Chair*: “Daddy speaks truth”, “My daddy loves starting the day with me”, and “His mother sat in the rocking chair, singing softly to her baby” (Dillon, 2019, p. 6; Henderson, 2022, p. 7; Figueroa, 2023, p. 1). Using attachment priming as a foundation, codes can be extracted with which to explore whether and how secure attachment is presented in children’s picture books.

All of the hypotheses presented thus far are rooted in Western foundations. This being said, this current study works to ensure that differences in parenting practices (e.g., showing sensitivity in different ways) are able to be adequately measured. The coding is set up in such a way as to leave certain areas “open-ended” to account for nuances between cultures. Ensuring that the attachment relationship is explored from multiple angles—not only the sensitivity hypothesis—is vital when exploring attachment across cultures. The understanding of the attachment relationship has evolved to be more aware of environmental, cultural, and biological factors, yet research more often than not relies solely on the sensitivity hypothesis. While this current study utilizes the sensitivity hypothesis, it also examines other constituents of the attachment relationship to explore attachment across cultures.

The Current Study

This quantitative content analysis looks to explore how the secure attachment relationship and secure attachment related themes are presented in children’s books for ages 3-5 across multiple different cultures (Asian, Black, Hispanic, Native, and White) by specifically exploring the relationship between a caregiver and child. This study chose to narrow what constitutes a primary caregiver to only encompass parents, grandparents, aunts, or uncles to ascertain what the

secure attachment relationship looks like across families. Specifically, this study looks to explore:

1. When examining family-centered children's literature from multiple cultures, how are secure attachment and secure attachment related themes represented in children's picture books, and which are most prevalent across cultural groups?
2. What differences in words, themes, visuals, and caregiver representation are found in children's books across cultures?

Further, it hypothesizes:

1. When examining familial cultural books, books classified as White and Black will show higher levels of the secure attachment relationship and secure attachment related themes.
2. When examining familial cultural books, books classified as Native will show lower levels of the secure attachment relationship and secure attachment related themes.

Methodology

Research Design

This study employed a quantitative content analysis with a cross-cultural comparative design to examine representations of secure attachment in children's picture books. This study pulled from past research on secure attachment priming and secure base scripts (Gillath et al., 2008; Waters & Waters, 2006) to create coding appropriate for examining the attachment relationship through multiple different lenses—narratively, visually, and thematically. To explore this, five cultures were chosen based on how present they are in the United States: Asian, Black, Hispanic, Native, and White. For each culture, 50 books were randomly chosen using the state public library system—which together constitute roughly 5 million books, approximately 20,000 of which are children's picture books.

Research Procedure

For this study, inclusion and exclusion criteria had to be created to ensure that the books that were selected would be able to present an authentic representation. All the books must depict a child and a caregiver, have both visuals and words, be in English, and it must be suitable for ages 3-5. The child and caregiver must be representative of the culture that is being explored, and the individuals in the books must be human. Books were excluded if they primarily showed a relationship with non-primary caregiver figures (e.g., teacher and friends). Because there are nuances in the representation of the secure attachment relationship across cultures, books that had extended family members as the caregivers were considered, but they must meet the same attachment criteria as the parents and other caregivers to be considered to display the attachment relationship. For example, if a child's grandmother is depicted in the story but the child does not

show any attachment relationship with the grandmother (or if it is clear that the grandmother is not one of the primary caregivers), then the grandmother would not be coded for in the book.

Both library databases use a tagging system to organize their books, which was utilized to organize the books into their cultural categories. The tags and the total number of books from both library databases for each group are as follows: “picture books AND African American OR Black” (N=475), “picture books AND Mexican OR Hispanic” (N=233), “picture books AND Asian” (N=164), “picture books AND Native OR Indigenous” (N=305). Neither library database had a specific tag for a “White” cultural group, so all “multicultural” books were excluded, and each randomly selected book was verified to not include any cultural category tag. The White category resulted in roughly N=1583.

For each group, a random number generator was used to randomly generate 50 numbers using the total number of books for each cultural group (e.g., 1 to 164 for Asian). For each number generated, a book was selected that corresponded to the generated number. Each book had to be manually verified to ensure it met the inclusion criteria. Further, to accurately measure secure attachment, it was deemed necessary that a “familial theme” must be present in the book. While there was an option to tag the books with a “familial” tag, this excluded a significant number of books that had a variation of a familial tag. To ensure the largest number of books were presented for each cultural group, each book was individually examined to see if it had some variation of a familial tag. The book was deemed appropriate if it had any of the following tags: families, mother and child, parent and child, parental love, fathers and daughters, fathers and sons, mothers and daughters, familial love, father and child, mothers and sons, mothers, fathers, parents, grandparents, aunts, uncles, African American families, Hispanic families, Asian families, or Native American families. If a book was randomly selected and was not

tagged with any of those tags, a new random number was generated until a book satisfied all the inclusion criteria.

Data Analysis

This study used a coding system to tally the frequency of attachment-related words, themes, and visuals in randomly selected children's picture books. Using the security hypothesis, the secure base hypothesis, secure base priming, and secure base scripts as a foundation, indicators were extracted from previous research (Bartels & Zeki, 2004; Bartz & Lydon, 2004; Boag & Carnelley, 2016; Cassidy et al., 2009; Deng et al., 2016; Gokce & Harma, 2018; Green & Campbell, 2000; McGuire et al., 2018; Mikulincer & Shaver, 2001; Pierce & Lydon, 1998). The indicators were grouped based on subcategory (See Figure 1- 3). "Other" subcategories were added to manually account for both cultural differences in the attachment relationship presentation and to catch attachment-related words or phrases not specifically listed (e.g., "you're safe"). The "other" group required a written account of the phrase and was cross-referenced with another individual to ensure the phrase aligned with the attachment relationship.

Using the codes presented in Figures 1-3, each book was individually examined and tallied. Each category—words, visuals, and themes—was coded separately. For each instance that a book met one of the codes, it received a tally. If there were two instances of the code being represented at once (e.g., two caregivers were smiling at a child), it received two tallies. For the "visual" category, a tally was added each time the caregiver was visually shown representing the category—if the caregiver was shown multiple times on each page, each instance was coded for. For example, if a child is shown sitting in a caregiver's lap while the caregiver smiles at the child, it would receive two tallies under the visual category; one for closeness and one for smiling. For the "words" category, the book received a tally each time the word was stated. For

example, if the book stated, “I love you,” it would receive one tally for “love.” Words were only coded if they were said in reference to a caregiver or child (e.g., “I love ice cream” would not be coded for love). A book would receive a tally under the “themes” category for every instance that a theme was represented. For example, if a child stated “I know my mom always comes back home to me” it would receive a tally under the “security and dependability” subcategory for themes.

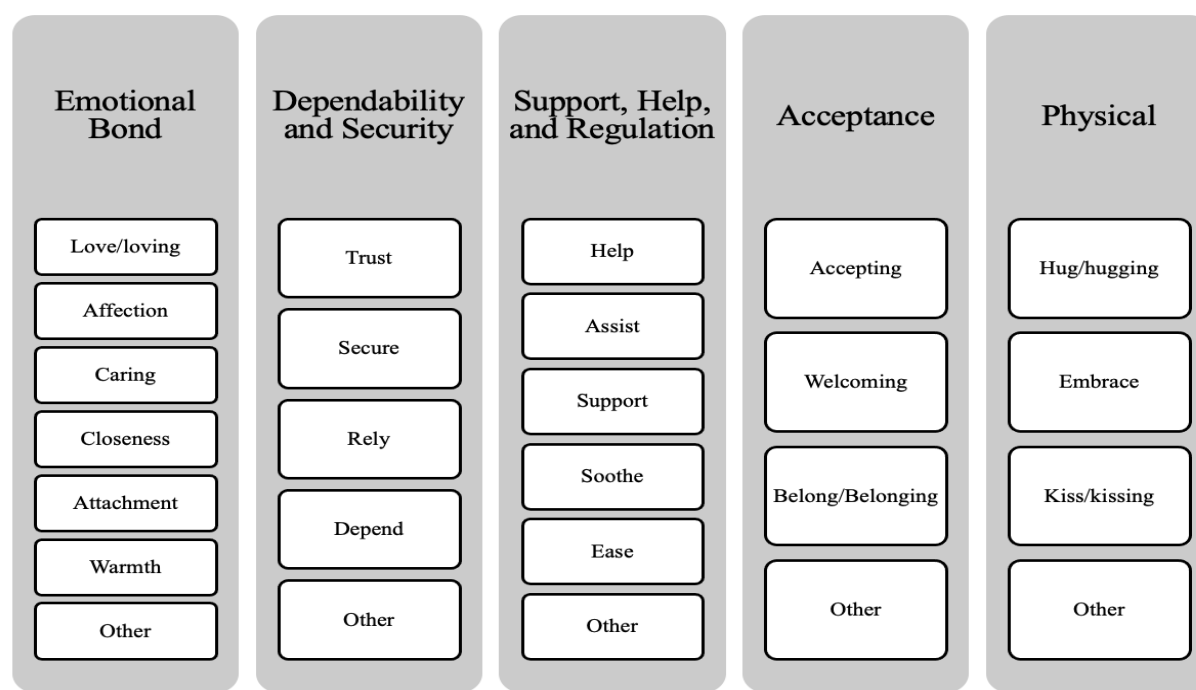
The inter-rater reliability was calculated to ensure the coding is consistent and reliable. Of the sample, 25 (10%) books were randomly selected to be re-coded by a different individual to ensure that the coding was consistent. Only 10% was re-coded due to high levels of reliability within the study—every book that was re-coded by a different individual was in 100% (or within 1 point) agreement of the original. As such, only 10% (the lower end of the standard) (O’Connor & Joffe, 2020) was re-coded.

The total number of tallies across all categories divided by the page number for each book was calculated to obtain an average secure attachment per page score. Information regarding who the attachment figure was in the book (e.g., mother, father, grandparent, etc.), along with the perspective the book was written from, who the child went to for help (if a problem was present), and the gender of the child was also collected. Only information regarding the caregiver and the gender of the child in books that were high in attachment were used in the final analysis (a book must receive a score at or above 0.6 to be considered high in attachment). The idea of a book being “high” in the attachment was abandoned after the coding was finalized. As such, some of the data (caregiver represented and gender of the child) are only representative of a subset of the total data. Descriptive statistics (means and standard deviation) were calculated for the categories (words, themes, visuals, and caregiver representation), and the subcategories

(see Figures 1-3). A one-way ANOVA was conducted to explore the differences between the categories, followed by a Tukey post hoc pairwise on both the categories and subcategories to more closely explore the differences when comparing cultures. Finally, a chi-square test was conducted to compare the representation of caregivers across cultural groups.

Figure 1.

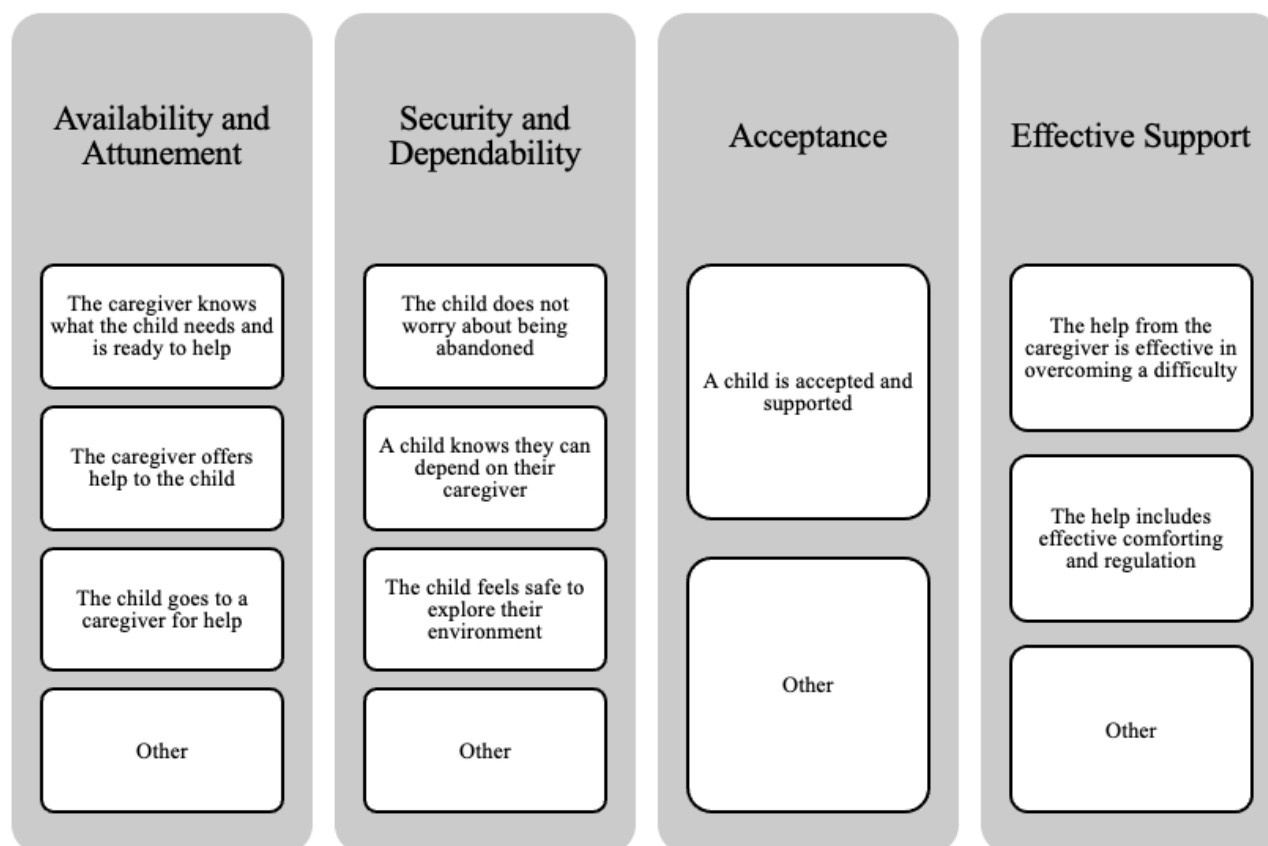
Word Indicators Explored in Children's Picture Books



**Words must be said either directly to a caregiver/child or in reference to a caregiver/child.*

Figure 2.

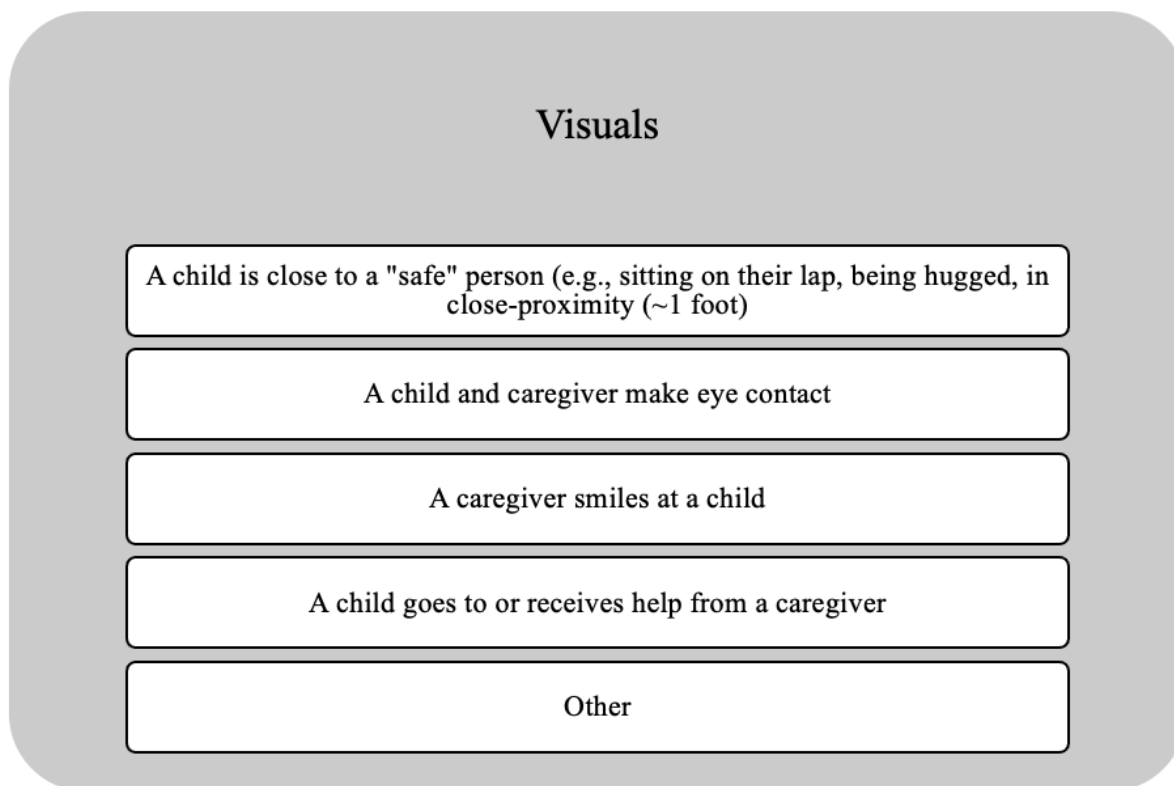
Thematic Indicators Explored in Children's Picture Books



**Overall themes or ideas that are not represented by words or visuals. Themes must be in reference to the caregiver-child relationship.*

Figure 3.

Visual Indicators Explored in Children's Picture Books



**Visuals must be displayed by the caregiver or the child.*

Results

This study examined how secure attachment and secure attachment related themes are represented in multicultural children's books and explored differences across cultural groups. Descriptive statistics, including means and standard deviations for each category (words, themes, and visuals) were calculated across cultural groups (see Table 2), along with their subcategories (see Tables 3-5). The findings reveal that the visual category was consistently the highest scoring category across cultures: Asian ($M=44.44\%$), Black ($M=36.63\%$), Hispanic ($M=36.32\%$), Native ($M=36.85\%$), and White ($M=35.82\%$). Frequencies of caregiver representation were also calculated (see Table 6). Histograms of the raw data were inspected to investigate distribution patterns (see Figures 4-7 in Appendix).

Mothers were the most common caregiver, represented in 51.16% of the books explored. Fathers were represented at a similar level by 48.83%. Grandmothers scored 36.04%, and grandfathers scored 11.62%. Aunts and uncles combined scored less than 1%. The percentages of caregivers exceed 100% because some books presented multiple primary caregivers.

A series of one-way ANOVAs were conducted to examine differences across cultural groups (see Table 7). Results indicated a significant effect for attachment-related words, $F(4, 245) = 2.85, p=0.03$, but not for themes, $F(4, 245) = 0.45, p=0.77$, or visuals, $F(4, 245) = 0.74, p=0.57$. These findings suggest that the frequency of attachment-related words varies across cultural groups, whereas themes and visuals remain relatively consistent. To further explore the differences in the word category, a Tukey post hoc pairwise comparison was conducted across subcategories. A significant difference was found only in the emotional bond subcategory (see Table 8)—as such, this was the only subcategory that was reported in this analysis. Specifically, the Black cultural group differed significantly from the White ($MD=-0.04, p=0.04$), Asian

($MD=0.04$, $p=0.02$) and Hispanic ($MD=0.05$, $p=0.2e^{-2}$) cultural group. A broader Tukey post hoc comparison across overall attachment-related words, themes, and visuals revealed a significant difference only between the Black and Hispanic groups ($MD=-0.06$, $p=0.02$), suggesting relative consistency across cultural groups aside from this comparison (see Table 9).

Finally, a chi-square analysis was conducted to examine caregiver representation across cultural groups. Results indicated a significant difference in the frequency of fathers, $\chi^2(4, N=40)=19.25$, $p=0.07e^{-2}$. No significant differences were found for mothers, $\chi^2(4, N=41)=6.68$, $p=0.15$, grandmothers, $\chi^2(4, N=29)=7.03$, $p=0.13$, grandfathers, $\chi^2(4, N=10)=3$, $p=0.91$, aunts, $\chi^2(4, N=2)=3$, $p=0.56$, or uncles, $\chi^2(4, N=1)=4$, $p=0.41$ (see Table 10). The highest scoring average secure attachment per page of picture books from each cultural category is reported in Table 11 in the Appendix.

Table 2.

Descriptive Statistics for Attachment-Related Words, Themes, Visuals Across Cultural Groups

Group	N	Attachment-Related	Attachment-Related	Attachment-Related
		Words (%)	Themes (%)	Visuals (%)
Asian	50	4.82	4.02	44.44
Black	50	9.32	4.17	36.63
Hispanic	50	3.69	5.11	36.32
Native	50	6.08	5.34	36.85
White	50	4.45	5.37	35.82

Note: Percentages exceed 100% due to multiple occurrences per page.

Table 3.

Descriptive Statistics for Attachment-Related Word Subcategories Across Cultural Groups

Subcategory	Group	N	Mean (%)	Std. Deviation
	Asian	50	1.52	0.03

Emotional Bond	Black	50	5.74	0.12
	Hispanic	50	0.68	0.01
	Native	50	2.53	0.05
	White	50	1.91	0.06
	Total	250	2.48	0.07
Dependability	Asian	50	0.00	0.00
	Black	50	0.39	0.02
	Hispanic	50	0.00	0.00
	Native	50	0.25	0.01
	White	50	0.20	0.83e ⁻²
	Total	250	0.17	0.92e ⁻²
Support	Asian	50	0.08	0.58e ⁻²
	Black	50	0.25	0.86e ⁻²
	Hispanic	50	0.27	0.92e ⁻²
	Native	50	0.07	0.50e ⁻²
	White	50	0.14	0.01
	Total	250	0.16	0.80e ⁻²
Acceptance	Asian	50	0.00	0.00
	Black	50	0.00	0.00
	Hispanic	50	0.07	0.50e ⁻²
	Native	50	0.00	0.00
	White	50	0.00	0.00
	Total	250	0.01	0.22e ⁻²
Physical	Asian	50	3.22	0.04
	Black	50	2.94	0.05
	Hispanic	50	2.74	0.04
	Native	50	3.23	0.07
	White	50	2.19	0.06
	Total	250	2.86	0.05

Table 4.

Descriptive Statistics for Attachment-Related Theme Subcategories Across Cultural Groups

Subcategory	Group	N	Mean (%)	Std. Deviation
Availability and Attunement	Asian	50	2.19	0.03
	Black	50	1.73	0.03
	Hispanic	50	1.78	0.03

	Native	50	1.83	0.03
	White	50	1.38	0.02
	Total	250	1.78	0.03
Security and Dependability	Asian	50	0.69	0.02
	Black	50	1.62	0.03
	Hispanic	50	1.78	0.03
	Native	50	1.64	0.04
	White	50	1.05	0.03
	Total	250	1.36	0.03
Acceptance	Asian	50	0.92	0.03
	Black	50	0.46	0.01
	Hispanic	50	0.67%	0.02
	Native	50	1.56%	0.04
	White	50	2.00%	0.06
	Total	250	1.12%	0.04
Effective Support	Asian	50	0.22%	0.89e ⁻²
	Black	50	0.36%	0.01
	Hispanic	50	0.89%	0.02
	Native	50	0.31%	0.01
	White	50	0.94%	0.02
	Total	250	0.54%	0.02

Table 5.

Descriptive Statistics for Attachment-Related Visual Subcategories Across Cultural Groups

Subcategory	Group	N	Mean (%)	Std. Deviation
A child is close to a caregiver	Asian	50	22.24	0.17
	Black	50	15.70	0.14
	Hispanic	50	16.80	0.12
	Native	50	20.73	0.13

	White	50	15.87	0.17
	Total	250	18.27	0.15
A child and caregiver make eye contact	Asian	50	7.59	0.08
	Black	50	6.45	0.07
	Hispanic	50	5.61	0.05
	Native	50	5.48	0.05
	White	50	7.17	0.08
	Total	250	6.46	0.07
A caregiver smiles at a child	Asian	50	12.51	0.11
	Black	50	11.63	0.12
	Hispanic	50	12.10	0.12
	Native	50	9.47	0.08
	White	50	10.93	0.12
	Total	250	11.33	0.11
A child goes to or receives help from a caregiver	Asian	50	2.09	0.03
	Black	50	2.85	0.04
	Hispanic	50	1.80	0.03
	Native	50	1.17	0.02
	White	50	1.85	0.03
	Total	250	1.95	0.03

Table 6.

Descriptive Statistics for Caregiver Representation Across Cultural Group (%)

Group	N	Mother	Father	Grandmother	Grandfather	Aunt	Uncle
Asian	20	70.00	80.00	50.00	10.00	0.00	0.00
Black	18	50.00	72.00	11.11	5.55	0.00	5.55
Hispanic	13	38.46	15.38	61.53	15.38	7.69	0.00
Native	17	29.41	17.64	29.41	17.64	5.88	0.00
White	18	61.53	46.15	30.76	15.38	0.00	0.00

Note: The percentages exceed 100% due to some children's books presenting multiple caregivers; these results present the caregiver representation only in children's books that received an average secure attachment score over 0.6.

Table 7.

One-Way ANOVA Results Examining Differences in Attachment-Related Words, Themes, and Visuals in Picture Books Across Cultures

		SS	df	MS	F	p-value
Words	Between	0.10	4	0.03	2.85	0.03
	Within	2.11	245	0.01		
	Total	2.21	249			
Themes	Between	0.9e ⁻²	4	0.2e ⁻²	0.45	0.77
	Within	1.18	245	0.5e ⁻²		
	Total	1.19	249			
Visuals	Between	0.26	4	0.07	0.74	0.57
	Within	21.64	245	0.09		
	Total	21.90	249			

Note: SS=Sum of squares; MS=Mean square

Table 8.

Tukey Post Hoc Pairwise Comparisons of Emotional Bond Subcategory Across Cultural Groups

Group	Race	MD	SE	p-value
Asian	Black	-0.04	0.01	0.02
	Hispanic	0.84e ⁻²	0.01	0.97
	Native	-0.01	0.01	0.94
	White	-0.39e ⁻²	0.01	1.00
Black	Asian	0.04	0.01	0.02

	Hispanic	0.05	0.01	0.2e ⁻²
	Native	0.03	0.01	0.12
	White	0.04	0.01	0.04
Hispanic	Asian	-0.84e ⁻²	0.01	0.97
	Black	-0.05	0.01	0.2e ⁻²
	Native	-0.02	0.01	0.64
	White	-0.01	0.01	0.89
Native	Asian	0.01	0.01	0.94
	Black	-0.03	0.01	0.12
	Hispanic	0.02	0.01	0.64
	White	0.61e ⁻²	0.01	0.99
White	Asian	0.40e ⁻²	0.01	1.00
	Black	-0.04	0.01	0.04
	Hispanic	0.01	0.01	0.89
	Native	-0.61e ⁻²	0.01	0.99

Note: MD=Mean Difference; SE=Standard Error

Table 9.

Tukey Post Hoc Comparisons of Attachment-Related Words, Visuals, and Themes Across Cultures

Group	Race	Attachment-Related Words			Attachment-Related Visuals			Attachment-Related Themes		
		MD	SE	p-value	MD	SE	p-value	MD	SE	p-value
Asian	Black	-0.04	0.02	0.11	0.09	0.05	0.44	-0.1e ⁻²	0.01	1.00
	Hispanic	0.01	0.02	0.97	0.09	0.05	0.46	-0.01	0.01	0.93
	Native	-0.01	0.02	0.96	0.07	0.05	0.63	-0.01	0.01	0.88
	White	0.4e ⁻²	0.02	1.00	0.10	0.05	0.31	-0.01	0.01	0.89
Black	Asian	0.04	0.02	0.11	-0.09	0.05	0.44	0.1e ⁻²	0.01	1.00
	Hispanic	0.06*	0.02	0.02*	-0.2e ⁻²	0.05	1.00	-0.01	0.01	0.96

	Native	0.03	0.02	0.41	-0.02	0.05	1.00	-0.01	0.01	0.92
	White	0.05	0.02	0.07	0.01	0.05	1.00	-0.01	0.01	0.91
Hispanic	Asian	-0.01	0.02	0.97	-0.09	0.05	0.46	0.01	0.01	0.93
	Black	-0.06	0.02	0.02	0.2e ⁻²	0.05	1.00	0.01	0.01	0.96
	Native	-0.02	0.02	0.70	-0.01	0.05	1.00	-0.2e ⁻²	0.01	1.00
	White	-0.01	0.02	0.99	0.01	0.05	1.00	-0.2e ⁻²	0.01	1.00
Native	Asian	0.01	0.02	0.96	-0.07	0.05	0.63	0.01	0.01	0.88
	Black	-0.03	0.02	0.41	0.02	0.05	1.00	0.01	0.01	0.92
	Hispanic	0.02	0.02	0.70	0.01	0.05	1.00	0.2e ⁻²	0.01	1.00
	White	0.02	0.02	0.91	0.03	0.05	0.99	-0.2e ⁻³	0.01	1.00
White	Asian	-0.3e ⁻²	0.02	1.00	-0.10	0.05	0.31	0.01	0.01	0.87
	Black	-0.05	0.02	0.07	-0.01	0.05	1.00	0.01	0.01	0.91
	Hispanic	0.01	0.02	0.99	-0.01	0.05	1.00	0.2e ⁻²	0.01	1.00
	Native	-0.02	0.02	0.91	-0.03	0.05	0.99	0.2e ⁻³	0.01	1.00

Note: MD=Mean Difference; SE=Standard Error

Table 10.

Chi-Square Analysis Comparing Caregiver Representation Across Cultural Groups

Caregiver	χ^2	df	p-value
Mother	6.68	4	0.15
Father	19.25	4	0.7e ⁻³
Grandmother	7.03	4	0.13
Grandfather	1	4	0.91
Aunt	3	4	0.56
Uncle	4	4	0.41

Note: these results present the caregiver representation only in children's books that received an average secure attachment score over 0.6.

Discussion

This study worked to explore whether the secure attachment relationship is present and how the secure attachment relationship is represented in children's picture books across five different cultures. This study pulled from research on secure attachment priming, secure base scripts, the sensitivity and secure base hypothesis, and internal working models (Gillath et al., 2008; McLeod, 2025; Noam & Fischer, 2013; Obegi & Berant, 2010; Rothbaum et al., 2000; Stern et al., 2023; Waters & Waters, 2006) to create coding appropriate for examining the secure attachment relationship through multiple different lenses—narratively, thematically, visually, and through caregiver representation. The results of this study contribute to the growing necessity of culturally conscious research surrounding the secure attachment relationship in children's literature. Further, it paved the way towards addressing an important gap in attachment-related research by examining the differences in the representation of the secure attachment relationship across cultures.

Descriptive Attachment Patterns

The descriptive findings (e.g., mean, standard deviation) provided insight into research question one, which explored how secure attachment-related themes were represented in children's picture books. The results indicated that across all cultures, the visual category was consistently the highest-scoring category. The Asian cultural group scored the highest at 44.44% among racial groups. The other cultural groups all scored in the 35-36% range (see Table 2). This pattern indicates a higher visual representation of attachment-related content in Asian children's picture books compared to the other cultural groups, although these differences were not significant.

Attachment-related words were the second highest-scoring category, with the Black cultural group receiving an average secure attachment-related word score of 9.32%. The lowest, and least common, secure attachment-related category was the themes where the cultural groups all received a score in the 4-5% range. These results indicate that across all cultures, family-centered children's picture books are likely to show a secure attachment relationship similarly, but at low levels. Further, they are more likely to visually represent the secure attachment relationship through pictures than through words or themes. This pattern may be due to the importance and prevalence of visuals in children's books, as children at this age (3-5) rely on images to interpret storytelling. Through the lens of attachment theory, these results may indicate that children's picture books may support the development of the secure attachment relationship more through visual modeling than through narrative explanations.

While not specifically coded for, it was noted that the insecure attachment relationship was present in multiple books—particularly those in the Hispanic cultural category—as they showcased the effects of deportation and separation of families. Some of the books in the Black and Native categories also touched on difficult subjects (e.g., slavery and boarding schools) that had an impact on how the attachment relationship was represented. It would be interesting to explore the representation of all the attachment categories and how they are presented in literature in a future study.

In looking at the presentation of the secure attachment relationship as a whole across cultures from a qualitative point of view, there were seemingly few differences in how the relationship was presented. The ways in which the caregiver responded to the child were fairly consistent with the sensitivity hypothesis across cultures (Mesman et al., 2016). Further, how the child's relationship with their caregiver was depicted was also stable across cultures. While some

cultures showed higher levels of specific caregivers, generally, their relationships were uniform. Interestingly, the data somewhat mirror the results in the research presented on how the secure attachment relationship may look in Asian cultures (Rothbaum et al., 2000) in that Asian families often predict what their child may need. The data reveal that Asian picture books scored second highest—with a difference of 0.01—in the indicator of attunement, suggesting that the results of this study seemingly mirror the cultural expectations of responsiveness in Asian culture in children's picture books. In future research, it would be interesting to explore this topic in children's picture books that were published outside of the United States.

Variations in Attachment Representations Across Cultural Groups

An examination of each category allowed me to answer research question two, which explored the differences in words, themes, visuals, and caregiver representation to see if each cultural group was statistically different. The one-way ANOVA indicated that there was a significant difference in the word category across cultures but not in the theme or visual category (see Figures 4-7 in the Appendix or Table 2 and 7 in the Results). This suggests that cross-culturally, secure attachment-related visuals and themes are represented relatively consistently. A closer examination of the word category reveals that the emotional bond subcategory presents the reason for the significant differences between cultures. When comparing cultures, we see that the Black cultural group is significantly different from the Asian, Hispanic, and White cultural group in the emotional bond subcategory, suggesting that Black children's picture books are more likely to use emotional bond related words (e.g., love, caring, warmth) to describe the secure attachment relationship (see Tables 3, 7, 8, and 9).

Interestingly, these results seem to align closely and support the idea that caregiver sensitivity is culturally dependent and differs across cultures (Stern et al., 2023). The children's

picture books from Black cultural backgrounds scored significantly higher in the emotional bond subcategory compared to the other cultures, perhaps indicating that caregiver sensitivity in Black cultures revolves around the use of affirmations and proclamations of love. These findings also align with more contemporary research that indicates that over the years, Black children's picture books have worked to shift away from books that uphold stereotypes towards books that represent ideas surrounding familial love (Bishop, 2012). Further, the research illustrates that Black cultural books have shown high levels of verbally communicating specific cultural ideas (Bishop, 2012). Both of these ideas provide some insight into the higher levels of emotional bond related words and support the notion that Black children's picture books are moving towards a more representative understanding of Black culture and life. Approaching this topic from a more open-ended perspective may illuminate further cultural differences in how individuals from different cultures view and express ideas of love.

Throughout this study, notes on the primary caregivers that were represented were also taken in books that scored above 0.6 on the average secure attachment per page (see Table 9). Originally, this study explored secure attachment at different thresholds (low, medium, and high); however, the lens of the study changed to explore attachment as a continuous variable. The children's books were originally coded with the threshold perspective in mind, so only the caregivers who were represented in the books that scored high in attachment were noted. If this study were to be repeated, obtaining the caregiver data from all the books would provide a clearer picture. When exploring the representation of caregivers in books that scored high in attachment (e.g., average secure attachment score above 0.6) across cultures, the results indicate that the representation of fathers is not evenly distributed, meaning some cultural groups include fathers less (e.g., Hispanic and Native) than was expected.

All other caregivers are distributed relatively evenly across cultures but, the cultures that more highly value collectivist ideals (Asian, Hispanic, Native) showed higher levels—compared to White—of extended family being one of the primary caregivers, which is consistent with research on collectivist values (Guess, 2004), however the results indicate that these differences are not significantly different across cultures. Interestingly, grandmothers were the most common caregiver in Hispanic picture books, with a score of 61.53%. These results are consistent with previous research (Howes et al., 2011), which reports that individuals in Hispanic cultures show high levels of extended family providing care to the family. These results reflect an important gap in current secure attachment research. A majority of secure attachment research revolves around the mother as the primary caregiver (Mesman et al., 2016), yet these results highlight that other family members may serve an important role in fostering the secure attachment relationship. If this study were to be repeated, it would be interesting to explore the specific role differences that each caregiver undertakes.

In regard to the hypothesis, it was expected that the Black and White cultures would score the highest on the average secure attachment score due to the higher levels of prevalence (e.g., there were more books to choose from). Compared to the other cultural categories, the books in the White and Black categories spent more time telling stories for the sake of telling stories; the other cultural books more often revolved around historic moments or holidays. The results of the study indicated that Black and White books did score higher compared to the other cultural groups, but this difference was not significant. Further, it was hypothesized that Native culture would score the lowest due to the low number of books on diverse topics, but Hispanic culture scored the lowest; again, these results were not significant.

These results, looking broadly at average secure attachment, while not significant, support previous literature on the universality argument of attachment theory, indicating the secure attachment relationship is fairly common and consistent cross-culturally (Keller, 2018; Mesman et al., 2016). Further, looking more closely at the categories, we can see that the results also support the idea that the secure attachment relationship does have some cultural nuances—particularly in the word category. These differences could perhaps be due to language differences in how cultures perceive and use narratives or words to describe relationships. Much of the previous literature on the secure attachment relationship across cultures “accounts” for cultural differences, and even when these differences are accounted for, we see the prevalence of the secure attachment relationship (Mesman et al., 2016). This, however, brings up the important consideration that our understanding of the secure attachment relationship is based on Western ideologies, effectively overlooking cultural distinctions (Tkaczyk et al., 2025). This study reveals that even when cultural differences are embraced, we still see a clear, secure attachment relationship, but that relationship retains some cultural uniqueness.

Limitations

This study worked to ensure that cultural differences could be adequately accounted for, yet some issues in coding presented themselves, which should be rectified in future studies. Research on attachment across cultures highlights differences in attachment figures—some cultures may place different emphasis on caregivers (Mesman et al., 2016). In an effort to account for this, the caregiver role was broadened to include multiple caregivers and extended caregivers (e.g., grandparents, aunts, uncles); however, the caregiver role of the community was left out. This became problematic in instances when an individual did not have a primary

caregiver, as seen in the book *Do You Know Them* (Keller, 2024), who instead made secure attachments with specific members of the community.

Further, because of the way that the coding system was set up, a small number of books received a higher secure attachment score due to frequent depictions of closeness to a caregiver or eye contact with a caregiver. This can be seen in *Sam and the Incredible African and American Food Fight* (Gibney, 2023), in which the child shows many instances of closeness to their caregiver, but the closeness does not necessarily represent a secure attachment relationship. While both components are important to the secure attachment relationship and secure attachment-related themes, alone, they do not suffice. Nonetheless, each instance was coded to maintain consistency and reduce subjective bias in determining whether such interactions reflect the secure attachment relationship. This issue—along with others—stems from the issue of standardizing and categorizing the attachment codes. In the pursuit of strengthening reliability, validity, and accurately exploring frequency, the more conceptual component of the secure attachment relationship—general quality of care—became secondary. While the thematic codes did help in this regard, the general idea surrounding the quality of care was difficult to measure because of the many ways it can be presented. If this study were to be repeated, non-standardized codes would provide a deeper representation of the secure attachment relationship across cultures.

Differences in coding must also be considered, as multiple people were chosen to assist with coding. To account for differences, 5 books from each cultural category were randomly chosen to be re-coded by a different individual. Only a few discrepancies arose (a difference usually of 1 point); of those, they usually arose in the visual category. When this occurred, the tallies were discussed until it was agreed upon how the book should be coded. Nevertheless,

discrepancies could still be present in books that were not randomly chosen due to the perceptions of the secure attachment relationship. Further, as mentioned above, the visual category was consistently scored the highest, which may have inflated the secure attachment score of certain books because each instance of the secure attachment relationship received the same score (one tally). If this study were to be repeated, adding “weight” to specific categories so that stronger representations of the secure attachment relationship would result in a higher score would help to ensure that purely frequency does not equate to secure attachment.

This study used an operationalized coding schema from prior research as a foundation for creating the coding system. As a result, certain areas of the secure attachment relationship were left out (e.g., independence and exploration), leaving a gap in this research. Both of these make up an important aspect of the secure attachment relationship, but were not directly explored in this study. Depending on the nature of the story, independence and exploration were sometimes coded if they fit into the thematic category. These instances would occasionally code alongside the dependability, acceptance, or effective support indicators. However, research needs to continue exploring the representation of the secure attachment relationship across cultures in order to develop more nuanced and sophisticated coding frameworks. In all, this study provided insight into how the secure attachment relationship is depicted in children’s books across multiple cultures. The results of this data may provide insight into future research in exploring this topic.

I must also acknowledge my standpoint as a researcher. I am a white woman who grew up in Oklahoma, yet most of my research is focused on race and racial bias. Through my own research endeavors, I have noticed a significant gap in research when it comes to minority groups. I am dedicating myself to ensuring that the information presented in this quantitative

analysis is authentic and that the stories collected are coded and examined in an unbiased manner. A limitation of this study is that my own examinations of each of the cultures may not be as authentic due to cultural differences. I worked to ensure that my examination of each of the different cultures was as authentic and culturally aware as it could be, however, nuanced differences that would be more prevalent to an individual who is situated within that culture may have gone overlooked. Working with individuals of the specific cultures that I am exploring as well as fully immersing myself within the cultures for future studies would help to provide a richer understanding of the secure attachment relationship within multi-cultural children's books.

In a similar vein, all of the picture books that I explored were in English. To more deeply understand the attachment relationship across cultures, broadening my inclusion criteria to include a culture's native language may provide more insight into cultural differences of how the secure attachment relationship is represented. Further, verifying that the authors and illustrators of each cultural book are a part of the culture they are writing about would continue to ensure that each culture is accurately represented, and their stories authentically told. There is a disconnect in publishing where we see books that are written and illustrated by individuals who may not be faithfully representing the culture. While we have seen an increase in the number of books published by diverse authors ("The Diversity Gap in Children's Book Publishing" 2018), ensuring that all the books that are explored when looking at this topic are authentic would provide more insight.

If this study were to be repeated, it would be interesting to explore the effects of the representation of socio-economic status on how the secure attachment relationship is presented. Further, investigating how other attachment figures that were not explored in this study (e.g., teachers, siblings, etc.) are represented alongside the secure attachment relationship would

provide a more versatile understanding across cultures. Expanding the age parameters to encompass books that are suitable for ages other than only 3-5 would shed light on the representation of the secure attachment relationship across the lifespan. Additionally, examining how the secure attachment relationship is presented in books published outside of the United States and in a variety of different languages would allow researchers to obtain more nuanced and culturally relevant insight.

Implications for Practice and Policy

This study sheds light on the importance of considering the secure attachment relationship from multiple lenses and perspectives when examining attachment across cultures. While most of the data indicated that there were no significant differences across cultures in secure attachment, the results do further support the universality argument of attachment theory and provide some insight into nuanced differences in how the secure attachment relationship is represented across cultures. These results may prove helpful for parents and educators as they work to implement a culturally diverse understanding of the secure attachment relationship into their home or classroom, and provide insight into different families and caregiving styles. Additionally, this provides parents with resources to further support the development of the secure attachment relationship through the thoughtful presentation of family-centered children's books through shared reading time. This study also has implications for expanding research on the attachment relationship from a Westernized viewpoint to include characteristics of non-Westernized cultures and communities, as it brings the important consideration of exploring what aspects of the secure attachment relationship change when looking across cultures.

Conclusion

This study looked to examine the secure attachment relationship in multicultural children's picture books. While the results of this study showed very little difference between cultures, when looking broadly at the data, we see that the universality argument of attachment theory is supported. Further, we see that the secure attachment relationship is a relatively common theme in familial multicultural children's books. The results of this study indicated that there are differences across cultures when examining the word category. However, we see consistency in both the visual and thematic categories cross-culturally. This highlights the importance of exploring culturally specific criteria when looking at the secure attachment relationship. This study serves to begin the exploration of how the secure attachment relationship is represented and depicted cross-culturally in children's picture books. Further, it opens the doors to examine how children's picture books can be a tool for strengthening secure attachment in children through the processes of both shared reading time and through the specific content represented in children's books. Continuing to explore attachment across cultures, along with its interaction with children's books, can pave the way towards more culturally relevant child-oriented research.

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Appendix

Figure 4

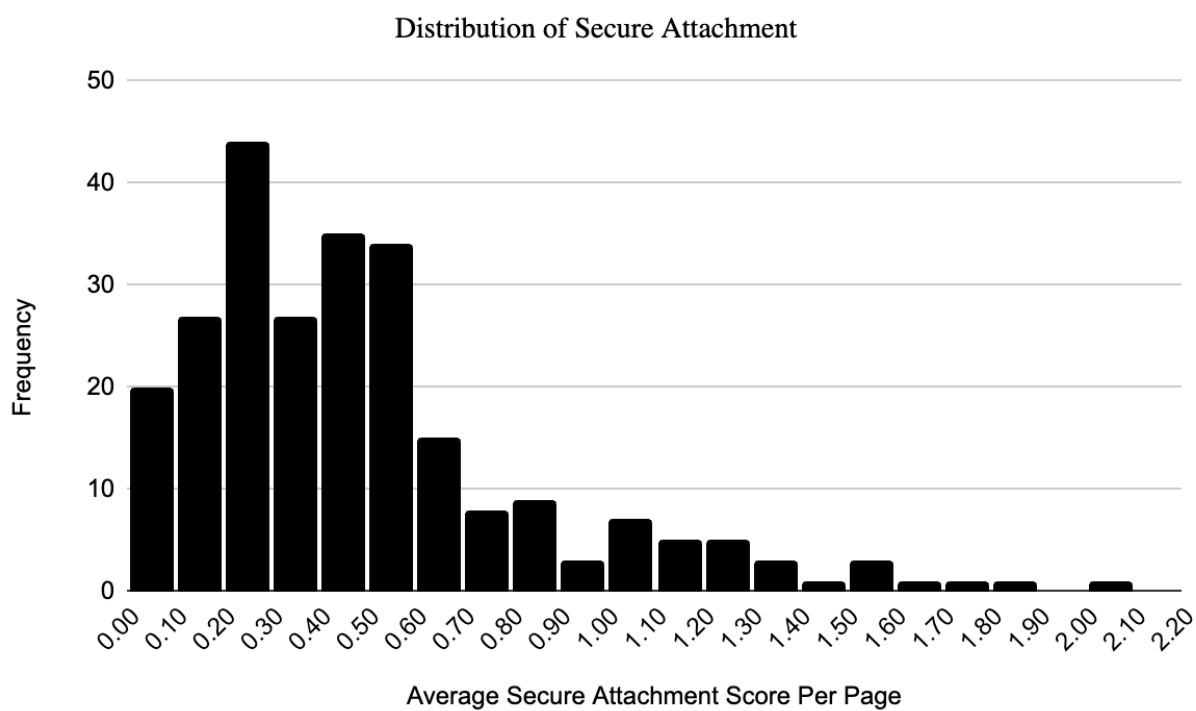


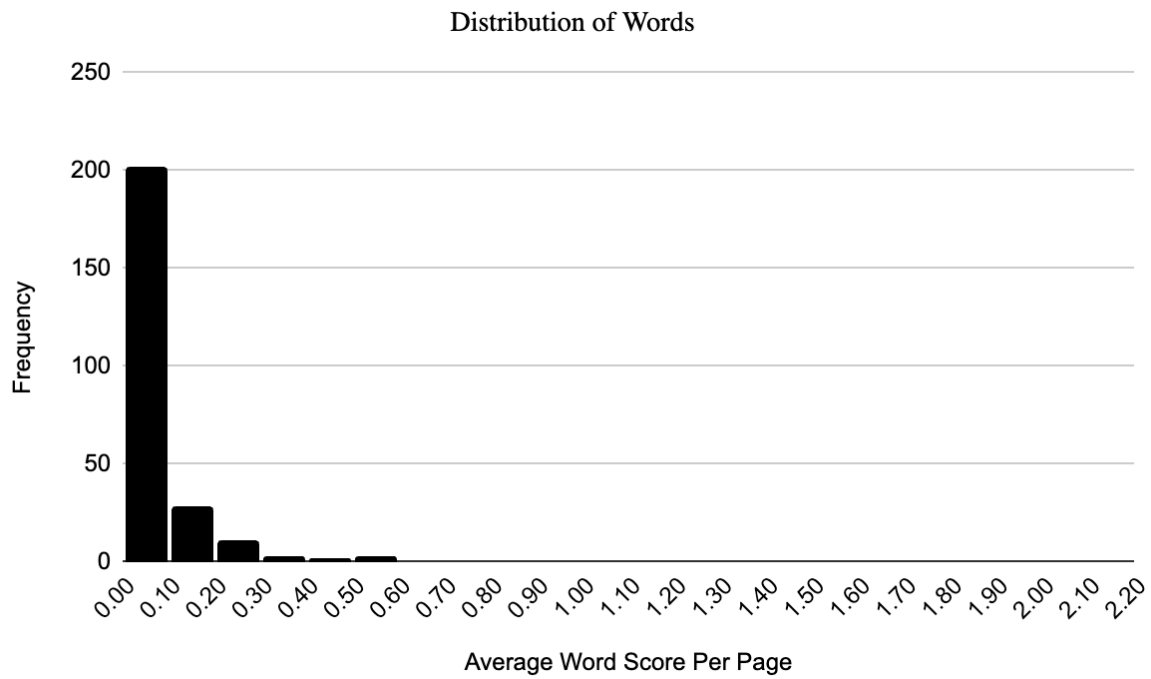
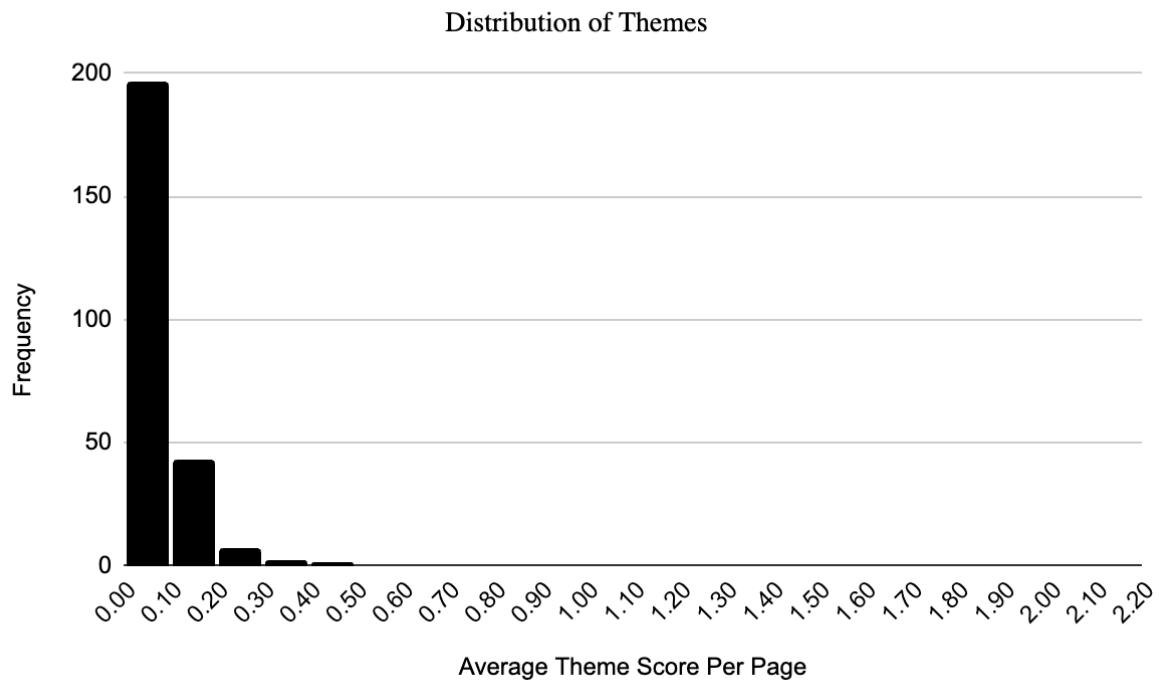
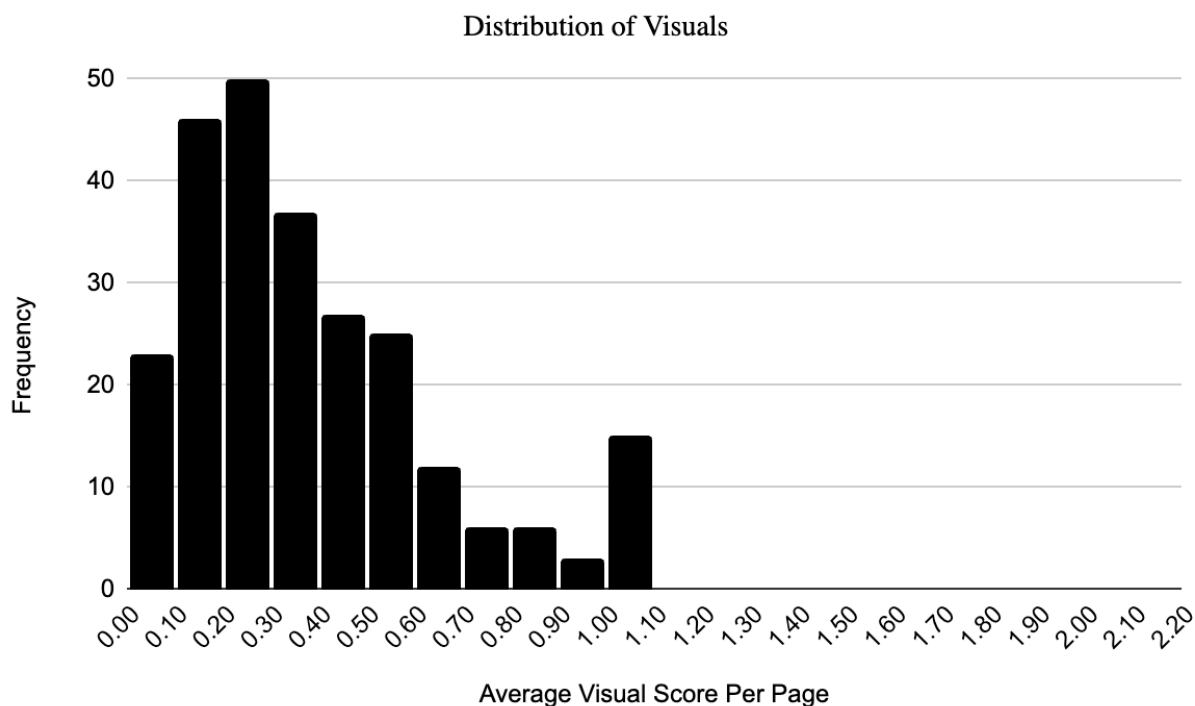
Figure 5**Figure 6**

Figure 7**Table 11**

Average Secure Attachment Scores and Frequencies of Highest-Scoring Books Across Cultures

Book	Author	Culture	AAS	Frequencies		
				Words	Visuals	Themes
<i>Eyes That Weave the World's Wonders</i>	(Ho & Kleinrock, 2024)	Asian	1.9	7	47	3
<i>I'll Go and Come Back</i>	(LaRocca, 2022)	Asian	1.75	1	48	2
<i>My Dadima Wears a Sari</i>	(Sheth, 2007)	Asian	1.25	3	31	1

<i>Sugar Pie</i>	(Weatherford, 2023)	Black	1.54	10	29	1
<i>Lullaby</i>						
<i>Peaches</i>	(Davis, 2024)	Black	1.5	9	34	2
<i>All The Greatness in You</i>	(Fryer Brown, 2024)	Black	1.46	3	32	0
<i>Abuela's Super Capa</i>	(Siqueira, 2023)	Hispanic	1.6	4	42	2
<i>Abuelita And Me</i>	(Carranza, 2022)	Hispanic	1.3	4	29	7
<i>Martina's Muy Bad Day</i>	(Singer, 2025)	Hispanic	1.26	1	26	6
<i>I Sang You Down from the Stars</i>	(Spillett, 2021)	Native	1.38	11	18	4
<i>First Laugh: Welcome, Baby!</i>	(Flood & Tahe, 2018)	Native	1.27	4	26	3
<i>Stitches Of Tradition</i>	(Rendon, 2024)	Native	1.15	4	25	1

<i>This is the First</i>	(Sedita,	White	2.07	5	53	4
<i>Book I Will Read</i>	2023)					
<i>to You</i>						
<i>Mommy's Kisses</i>	(Ashman,	White	1.5	10	17	3
<i>and Cuddles</i>	2023)					
<i>Hammer And</i>	(Bledsoe,	White	1.19	0	33	13
<i>Nails</i>	2022)					

Note: AAS refers to the Average Attachment Score per page.