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# Goal-Corrected Partnerships: Young Children's Representations of Mother-Child Negotiation

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Goal-corrected partnership (GCP) is the co-constructed, dyadic process by which parents and children negotiate a balance between children's urges for autonomy and self-assertion with parents' needs to protect by providing limits and sensitivity to children's goals (Ainsworth, 1985; Kobak et al., 1993; Nucci et al., 1996). Empirical evidence on the emergence and development of GCP is limited. The current study drew from the attachment and parenting literatures to develop and utilize a coding scheme to assess low-income children's mental representations of GCP. The aims were to describe children's representations of child-mother negotiations at ages 5 and 7 and to examine whether representations were associated with qualities of mother-child interaction and developmental skills and difficulties. Story stem narrative data from the Early Head Start Research and Evaluation Project ($n$= 106) were utilized. Results indicated there were significant effects of age and gender on representations of GCP. At age 7, children represented give and take negotiations as well as balanced levels of child characters' self-assertion and mother characters' limit setting and helping behaviors. Further, girls engaged with the material more frequently and represented more aspects of GCP, particularly at earlier ages. Older children and girls' narratives were also more coherent and included more mentalization, key components of GCP. Representations of GCP were associated with maternal representations, positive and negative mother-child interactions, and maternal reported discipline. Children's language and self-regulation abilities, as well as emotional and behavioral difficulties, also were

associated with representations of GCP. These findings provide a deeper understanding of children's awareness and internal working models of mother-child relationships during early childhood. Children's view of parental support and encouragement for their developing autonomy and capabilities to negotiate around goal attainment may impact their expectations in other social relationships, as well as emotional and behavioral responses to new social encounters. Implications of these findings include interventions aimed at improving the parent-child attachment relationship and children's skill development.

# Goal-Corrected Partnerships: Young Children's Representations of Mother-Child Negotiation

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Goal-Corrected Partnerships: Young Children's Representations of Mother-Child Negotiation

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# CHAPTER 1: INTRODUCTION

During early childhood, children begin to assert their autonomy in new ways and parents respond with varying levels of limit setting and sensitivity. As dyads learn to balance children's self-assertions with parental containment, goal-corrected partnerships (GCP) are theorized to emerge (Simpson & Belsky, 2008). They influence the development of children's internal working models of their relationships. Children's ability to be autonomous and negotiate in the parent-child relationship can provide important information about GCP in other social relationships (Sameroff & Haith, 1996). Children who engage in GCP with secure qualities may show advantages, including improved wellbeing and social-emotional success (Berndt, 2004; Ryan & Deci, 2000).

Despite a theoretical literature, there has been little empirical evidence for individual differences in its characteristics or the timing of GCP's emergence and development. Rarely has research illuminated the process of negotiation, especially in low-income, ethnically-racially diverse samples. The current study contributes to the literature by devising and using one of the first coding schemes for assessing GCP from the viewpoint of children as they tell stories about conflicts between child characters and their mothers. These partnerships were explored at ages 5 and 7, when individual differences are expected to be present based on improvement in mentalization abilities, to examine characteristics at each age, change, and the factors that impact the development of GCP.

## Organization of the Dissertation

Chapter Two begins by outlining the theoretical and empirical literature on GCP and implications for its assessment in the current study. In addition, the skills that contribute significantly to the formation of GCP are explored. Following this is a review of the purpose of

the study and the associated aims and hypotheses. Chapter Three presents the methods for the current study, followed by the results in Chapter Four. Chapter Five examines the results in relation to the reviewed literature. Finally, the study's limitations and significance are discussed.

## CHAPTER TWO: REVIEW OF RELEVANT LITERATURE

### Goal-Corrected Partnerships

Goal-corrected partnership (GCP) is the process by which parents and children negotiate a balance between children's need for autonomy and self-assertion and parents' needs to protect by providing limits and sensitivity to children's goals (Ainsworth, 1985; Kobak, Cole, Ferenz-Gillies, Fleming, & Gamble, 1993; Nucci, Killen, & Smetana, 1996). Children become increasingly aware of how to get their needs and wants met starting in early childhood (Solomon & George, 1999). Parents become increasingly aware of the necessity to enforce context and circumstance-appropriate containment and encouragement for assertion, rooted in their cultural background (Allen, 2008). They consider children's developmental urges to become autonomous against the children's immediate versus long-term needs. Parents respond to children's feelings with respect and without threats of abandonment (Shields, Ryan, & Cicchetti, 2001).

This co-constructed, dyadic process evolves gradually across the lifespan (Cicchetti, Cummings, Greenberg, & Marvin, 1990) and involves consideration of the other's goals, thoughts, and feelings, open communication, and willingness to compromise. Earlier positive dyadic mutuality positively contributes to children's motivation to cooperate and to engage in GCP (Kochanska, Aksan, & Carlson, 2005). During the preschool years, children are increasingly able to take and communicate about the viewpoint of their caregivers through developing theory of mind skills, allowing them to consider simultaneously their own and their caregivers' goals (Marvin & Britner, 2008). Caregivers ideally openly communicate with children about when their attempts to accomplish their own goals must be limited, teaching children their goals may be too broad or inappropriate (Dwyer, 2005), especially in situations

where the child's health and safety are at risk (Nucci et al., 1996). Children and parents eventually learn how to compromise by adjusting their goals to arrive at mutually agreed upon solutions. This fosters relationship closeness and conflict resolution, while allowing children to assert their autonomy in limited ways (Ainsworth, 1985; Allen, 2008; Bowlby, 1982; Gini, Oppenheim, & Sagi-Schwartz, 2007; Moss et al., 2014; West, Rose, Spreng, Sheldon-Keller, & Adam, 1998). During adolescence, however, these GCP are often re-negotiated, as youth and parents reconsider how to balance their needs for self-assertion and parental containment, respectively, around age specific challenges. Mutual co-regulation further fosters the ability to form new GCP (Thompson, 2008). Examining changes in several aspects of GCP across a transition in early childhood, the current study aimed to provide a glimpse into the world of how children portray mutual understanding and compromise to accomplish their goals.

**Assessing GCP**

Empirical evidence on GCP is limited. Among the few researchers who have studied GCP, most have approached measurement through observed mother-adolescent discussions about disagreements with inquiry limited to predominately White, middle class samples (Allen et al., 2003; Kobak et al., 1993). This research has included Kobak and colleagues (1993) who rated use of communication to summarize the other's position, goals, and point of view to assess GCP, as well as Allen and colleagues (2003) who rated displays of engagement, empathy, and presentation of one's reasoning to assess aspects of GCP.

Assessment of GCP in younger children has often been through their symbolic play because it relies less on children's ability to self-reflect and verbalize. Moss and colleagues (2009) used a play-based story stem assessment to make inferences about children's GCP through their inclusion of relational and moral themes in their story responses. Gini et al. (2007)

similarly assessed aspects of GCP during a mother-child joint storytelling task. In their study, mutuality of dyadic communication and cooperation were rated along with mothers' use of structuring, warmth, and interest and children's cooperation, responsiveness, and warmth. Both studies focused on 7 to 9 year old children of White and middle-class background, and dyadic negotiation was only observed in a single context. Neither adequately considered individual differences. How demographic, developmental, and relational factors significantly impact the development of GCP is particularly important for efforts to foster these partnerships.

GCP has not been assessed in ethnic-racial minorities or samples with lower socioeconomic statuses, and it has not been studied across more than one conflict context. There are also concerns about the timing of assessment in the limited GCP empirical literature. These partnerships are considered well developed during adolescence, whereas they are thought to be more rudimentary as they emerge during preschool. Beyond a lack of research during the time in which GCP are developing initially, there is limited consideration for what the give and take process of negotiation might look like as children make transitions, such as from preschool to elementary school. Some researchers have hypothesized that GCP may emerge later than the preschool years, as proposed by Bowlby (Waters, Kondo-Ikemura, Posada, & Richters, 1991). Others support the idea that GCP needs to be continually renegotiated throughout development (Cicchetti et al., 1990), as children negotiate with parents about the level of monitoring and supervision necessary (Kerns, Aspelmeier, Gentzler, & Grabill, 2001).

Further, attention needs to be focused on individual differences in the range or process of emergence of GCP, rather than merely its presence or absence. Some children may continue to focus on their own personal desires to explore and receive comfort, rather than cooperating with caregivers around mutual goals. Others may more quickly become aware and responsive to the

emotional and motivational experiences of others, sometimes referred to as increased intentionality (Hill, Fonagy, Lancaster, & Broyden, 2007).

**Assessment of GCP in the Current Study**

The current study addressed the limitations of sampling, measurement, and attention to individual differences by developing and utilizing a coding scheme for assessing low-income children's mental representations of GCP. Similar to Moss et al. (2014), this study employed a play-based story stem assessment procedure to assess children's internal working models of the give and take process of GCP from the perspective of the child. The coding scheme was grounded in the attachment and parenting literatures. Variations were explored based on characteristics, such as story context, gender, and race/ethnicity.

**Attachment research.** John Bowlby (1982) introduced the concept of GCP as a way to describe children's increasing ability to engage in a partnership as the culmination of the attachment process occurring around age four. Children begin to move away from secure base behaviors to increasing autonomy seeking (Gini et al., 2007), restricting their reliance on the attachment figure to be accessible and responsive when needed in more delimited contexts (Kerns et al., 2001; Waters & Cummings, 2000). Situations that involve threat may, therefore, continue to activate the attachment system reducing autonomy and thus a give and take negotiation.

A secure attachment supports healthy and balanced GCP through neither minimizing nor over-emphasizing closeness or separateness in the relationship and promoting reciprocal cooperation (Gini et al., 2007; Kerns et al., 2001). Securely attached children remain confident that their relationship with caregivers will not be disrupted despite disagreements (Allen, 2008).

They do not disengage or expect caregivers to do so, nor do they feel their assertion of autonomy is or will be undermined (Crockenberg & Litman, 1990).

Research suggests that security of attachment is best understood along a continuum (Fraley & Speiker, 2003). This continuum was used to operationalize aspects of GCP in the current study. Secure responses are inclusive of children's assertions and parents' limits as resolutions to problems are sought. Less secure responses are expected to range from controlling and punitive, avoidant behaviors to anxious and resistant ones (Smyke, Zeanah, Fox, Nelson, & Guthrie, 2010; Zeanah, Berlin, & Boris, 2011). Insecure responses indicate children's inability to simultaneously consider balancing attempts to self-assert with parental containment. Caregivers providing too much autonomy by offering limited support, for example, lead children to experience an overly grand sense of their own competence or feelings of incompetence (Ainsworth, 1985). With an uncertainty about the availability and responsiveness of caregivers when necessary and their own abilities to regulate, children may become overwhelmed by emotions (Brumariu & Kerns, 2008). They may also respond to these situations with negative affect including fear, anger, frustration, and hostility toward caregivers (West et al., 1998), which hampers GCP.

Further, there is some evidence that gender differences may exist in the activation of the attachment system (Dwyer, 2005), potentially influencing the emergence and development of GCP. Specifically, boys are thought to seek autonomy sooner than girls, placing a higher value on separateness. Girls, conversely, are thought to value closeness and openly convey their need for comfort through emotional expression. These preferences are often driven by gender socialization messages. Further, research with adolescents has indicated that boys exhibit more assertive tactics during problem solving with caregivers (Kobak et al., 1993), potentially limiting

opportunities for secure back-and-forth negotiations to occur more so than girls. Boys and girls also manifested avoidant attachment tendencies differently, with only boys displaying dysfunctional anger. Given the lack of empirical research on GCP with younger children, it is unknown whether gender differences may emerge in the balance between self-assertion and parental containment. However, given the significant development of gender roles and identity between the ages of 5 and 7, gender differences may be particularly relevant.

**Parenting research.** Within secure GCP, children experience balanced parental warmth and strictness based on the context and cultural imperative with which they identify, and ideally, provide children with developmentally appropriate autonomy (Brumariu & Kerns, 2008). The literature on child-rearing styles (Baumrind, 1971) provides information about the balance among these aspects (Gray & Steinberg, 1999; Hart, Newell, & Olson, 2003). Parents utilizing an authoritarian parenting style commonly provide a high level of strictness with low levels of warmth, whereas those utilizing a permissive parenting style typically provide the opposite. Authoritative parents usually balance these two aspects evenly. As children become increasingly independent from caregivers, they learn how to assert themselves in relationship-specific ways. Dyads determine how much control children will have in regulating their own autonomy and how it will be balanced with developmentally appropriate limit setting, increasing a willingness by both partners to compromise as necessary on differences about personal control.

Children also gradually learn how to resolve disagreements with caregivers. Children with responsive caregivers who openly communicate with them foster children's willingness to negotiate (e.g., Darling & Steinberg, 1993; Laursen, Finkelstein, & Betts, 2001; Nelson, Boyer, Sang, & Wilson, 2014). This is a major component of how caregivers and children collaborate to form GCP (Gini et al., 2007). Whether gender impacts responsiveness and negotiation during

GCP at younger ages is unknown, but some evidence suggests girls more often may have caregivers that are more willing to communicate and engage in joint decision-making at older ages (Koehn, 2014).

**Story stems.** Children draw from their personal experience and representations of their inner worlds to concretely manifest their representations of conflict resolution through their narrative responses, including expectations of adult involvement and support (Cassidy, 1988; Robinson, Herot, Haynes, & Mantz-Simmons, 2000). Therefore, story stems are ideal for examining how children represent aspects of GCP with caregivers because these partnerships originate out of conflicting goals, a critical aspect of story stem narratives approaches (Boris et al., 1999). These assessments have been shown to be a valid way to examine preschool children's internal worlds and insight into how to navigate emotional challenges and interpersonal conflicts (e.g., Grych, Wachsmuth-Schlaefer, & Klockow, 2002; Page & Bretherton, 2001; Schecter et al., 2007). Additionally, given the challenge for younger children to describe their understanding of relationships with caregivers, story stem narrative assessments are ideal because they rely less on children's ability to self-reflect and verbalize. Children's representations have been shown to be associated with later behavior (Laible, Carlo, Torquati, & Ontai, 2004; Page & Bretherton, 2001; von Klitzing, Stadelmann, & Perren, 2007).

Through the use of family doll figures, children are asked to show and tell how they would finish story beginnings that target themes (e.g., rule-breaking, mishaps, and self-injury) that are not possible to observe naturalistically (Buchsbaum et al., 1992). Further, the challenges inherent in these stories are common to a diverse group of children (i.e., across race, gender, and age) and the open-ended response format allows for rich individual differences to emerge. This assessment strategy also allows children to distance themselves from the emotions or stress of

having experienced these events themselves (Robinson, 2007). Further, they capture children's ability to mentalize about dual perspectives, a key component of GCP (Fonagy & Allison, 2012).

Narrative coherence, or the way individuals construct and organize a story, is an important aspect of resolution of attachment. Instruments such as the Adult Attachment Inventory (AAI: Main & Goldwyn, 1985/1991) treat narrative coherence as a central feature when categorizing the internalized attachment relationship of adults. Fiese and Sameroff (1999) have also explored narrative coherence at earlier ages and its importance for assessing the ability to consider different perspectives, another key component of GCP. Whereas narrative coherence is related to language development milestones in young children (Oppenheim, Emde, & Wamboldt, 1996), by age five children's verbal abilities expectably permit them to tell a coherent story. However, as in older individuals, coherence is disrupted by emotional content and unresolved conflict. Therefore, narrative coherence in the current study can provide a glimpse into successfully being able to navigate these conflict situations through representations of aspects of GCP. Additionally, some evidence suggests that girls' narratives tend to be more coherent (e.g., Moss, Bureau, Beliveau, Zdebik, & Lepine, 2009) and include more representations of maternal sensitivity (Page & Bretherton, 2001), so the current study also explores whether gender differences may emerge in GCP given these and other previously mentioned associations.

In the current study, children are asked to respond to story beginnings that include emotion-evoking situations in which child characters are forewarned or reminded of a prohibition, but the child characters overstep the boundary and commit the transgression. In the current study, these goals include: being able to stay up later to watch TV, taking a candy bar from the store counter, using a real knife while "pretend" cooking, and tasting hot soup from the

pot on the stove. The last two stories involve defiance that results in injury. Children are given the opportunity to play out in their own story endings how the doll parents and children would behave as the doll children assert themselves by ignoring a prohibition.

**Developmental Contributions to GCP**

**Mentalization.** Children begin to form metacognitive abilities in early childhood that aid in identifying how people's thinking influences their behavior (Fonagy, Target, Gergely, Allen, & Bateman, 2003). Children realize that their thoughts, goals, and feelings may differ from others' (Ainsworth, 1985). Inherent in GCP, mentalizing allows a child to hold a representation of self and other simultaneously, considering others' beliefs and plans when determining how to respond accordingly (Fonagy & Allison, 2012; Fonagy & Target, 1997). Mentalizing helps children particularly in emotion-evoking situations by allowing them to detach from the immediate situation to think about how they feel, what they want to happen, and how they are going to go about meeting their goals (Fonagy & Allison, 2012). Children are better equipped to engage in mutual, reciprocal exchanges of ideas when they share a common state of mind with caregivers (Hill, Fonagy, Safier, & Sargent, 2003). As children take the viewpoint of their caregivers, they move the conversation toward mutual understanding and ways to resolve conflicts stemming from their competing goals.

As children move toward middle childhood, their abilities to mentalize improve (Eisbach, 2004; Sameroff & McDonough, 1994). Some attribute this to the '5 to 7 shift' (Haith, 1998; Sameroff & Haith, 1996), indicating that by age 7, thought becomes more adult-like and reasonable, self-regulation, inhibition, and mental reflection improve, and children know more about their emotions and attributes (Sameroff & McDonough, 1994). Individual differences may be present early and children who lag in their development of mentalization may be particularly

challenged during the 5 to 7 shift in their demonstration of GCP. By examining aspects of GCP during this transitional time, individual differences, which have long-term social-emotional implications, may become more apparent (Gini et al., 2007; Waters et al., 1991).

**Communication.** Children's developing communication skills allow them to enter into discussions with caregivers about their individual viewpoints and feelings to achieve a shared perspective and foster mutually agreed-upon goals (Boris et al., 1999; Gini et al., 2007; Moss et al., 2014). Children's increases in vocabulary, organization of their language, and ability to sustain more and longer conversational turns between the ages of five and seven are critical components of GCP that continue to improve across time.

**Regulation.** Children also develop improved cognitive, emotional, and behavioral regulation abilities based on increased consideration for the thoughts and feelings of others (Fonagy & Allison, 2012; Fonagy & Target, 1997; Ryan, Kuhl, & Deci, 1997). Caregivers help children gradually stay within the negotiated limits of conduct through regulation of their emotions and behavior (Cole, Martin, & Dennis, 2004; Kerns, 2008). Children with these abilities are better able to engage in the verbal negotiation and problem solving inherent in GCP as they learn to organize their thinking and continue to build relationships. They are able to more clearly articulate their ideas to the other, without their emotions taking over (Gini et al., 2007). As children develop, their increasing ability to take others' perspectives and regulate themselves (Colle & Del Giudice, 2010; Moss et al., 2014) improves their ability to balance their autonomy and relatedness. In the current study, regulation is also thought to support being able to tell a coherent story, above and beyond language competency, without being overwhelmed by emotion. Therefore, it is reasonable to suggest children with emotional and behavioral difficulties may be particularly challenged to demonstrate GCP.

## Purpose of Research

The current study had two aims. The first was to describe children's representations of child-mother negotiations at ages 5 and 7. Specifically, the way children balance within the stories the actions and self-asserted goals of the child with their mother's responses at moments when their goals conflict was examined. Mothers were focused on because of their primary caregiver role in the majority of the current sample. Children's representations were rooted in four aspects of GCP developed for the current study: (1) security characteristics of give and take, (2) child characters' self-assertions, (3) mothers' responses to rule breaking, and (4) mothers' responses to children's needs after injury. It also considered children's narrative coherence, mentalization during narration, and representations of mothers. The second purpose of the study was to examine whether representations were associated with: (1) observed qualities of the mother-child relationship, (2) mothers' reported parenting behaviors, and (3) children's developmental assets and problems such as self-regulation, language, and emotional and behavioral difficulties.

Given the lack of empirical evidence for individual differences in the occurrence and timing of GCP in the realm of representations, the information gained in this study informs the literature base. Specifically, the current study is the first to utilize a coding scheme for children's representations of GCP during the transition from age 5 to 7 in a low-income, ethnically-racially diverse minority sample.

## Research Questions

The GCP literature presupposes a co-constructed, dyadic process that evolves gradually across the lifespan (Cicchetti et al., 1990). However, based on the theoretical literature, GCP may appear differently based on context. Situations that activate the attachment system might be

less conducive for seeking autonomy, limiting parent-child negotiation (Kerns et al., 2000). Further, gender differences could exist in the emergence and development of GCP given research that supports boys are encouraged to be more autonomous (Dwyer, 2005). In addition, children that possess metacognitive abilities may be particularly poised to successfully consider their own and others' thoughts and feelings to negotiate goal attainment (Fonagy & Allison, 2012).

Therefore, a set of preliminary questions addressing methodological decisions for this dissertation include:

**RQ1**: Do children's representations vary based on story context (injury vs. defiance)?

**RQ2:** Do children's representations vary based on child gender?

The set of questions for this dissertation that address Aim 1, to describe children's representations of aspects of GCP, include:

**RQ3:** How do children represent aspects of GCP at ages 5 and 7?

**RQ4:** How are representations of the aspects of GCP related to one another?

**RQ5:** How are narrative coherence, mentalization, and representations of mothers associated with representations of GCP?

**RQ6:** How do children's representations of GCP change from age 5 to 7?

GCP emerge based on the characteristics of both partners. Children who experience parental warmth balanced with strictness and are encouraged to be autonomous learn to negotiate around issues of goal attainment. Children that experience a high level of strictness, however, may struggle to balance this parental containment with opportunities to self-assert. Further, children that possess the ability to regulate their thoughts, emotions, and behaviors and to communicate effectively utilize these skills to engage in negotiation and problem solving

inherent in GCP. Children that struggle with controlling their behavior, however, may find it hard to represent negotiations due to the conflict between a high level of both parental containment and self-assertion.

Therefore, the question for this dissertation that addresses Aim 2, is:

**RQ7:** What qualities of interaction and developmental skills and difficulties are associated with children's representations of aspects of GCP?

The corresponding hypotheses for this dissertation include:

Developmental Assets and Difficulties

**H1:** Children with greater language skills will represent higher levels of GCP, including more characteristics of give and take, higher levels of self-assertion and maternal response to rule breaking and injury needs.

**H2:** Children with greater levels of self-regulation will represent more secure characteristics of give and take and less self-assertion. Children that have low levels of self-regulation will represent more resistant characteristics of give and take.

**H3:** Children with more reported externalizing behavior problems will represent more characteristics of avoidant give and take and higher levels of limit setting and self-assertion. Children with less behavior problems will represent more secure characteristics of give and take.

Parent-Child Interactions

**H4:** Children of mothers who reported stricter discipline practices will represent a greater level of maternal limit setting in their story narratives at ages 5 and 7.

**H5:** Positive mother-child interactions (sensitivity and supportiveness, child engagement, dyadic mutuality) will be associated with more characteristics of secure give and take and higher levels of maternal response to injury needs, whereas negative mother-child interactions (intrusiveness, child negativity) will be associated with fewer characteristics of secure give and take and lower levels of maternal response to injury needs at ages 5 and 7.

# CHAPTER 3: METHOD

## Sample

The current study drew on archived data from the Early Head Start Research and Evaluation Project (EHSREP). The EHSREP is rigorous randomized control trial evaluating the impact of the Early Head Start (EHS) program, an early intervention program for low-income U.S. families with children under age 3 years (Love et al., 2005; Paulsell, Kisker, Love, & Raikes, 2002). Participant families had incomes at or below the federal poverty level at enrollment. The evaluation began in 1996 and was conducted at 17 of the original 68 EHS sites from across the country (Raikes & Love, 2002). Families were randomly assigned to either EHS services or a control group upon enrollment (prenatally or when the child was younger than a year) and were followed over time, specifically during three phases. Data from 3,001 families were collected nationally when children were 14, 24, and 36 months old, and again at the end of prekindergarten (approximately 5 years old). Three sites were also involved in a locally designed investigation at the end of first grade (approximately 7 years old).

The current study was a secondary data analysis and utilized data from two of the sites in a Western state that completed the age 7 follow-up. Data from 106 English-speaking, non-Hispanic children, 75 children completed at least one of the four story stem narratives included in the current study at both age 5 and age 7. Seventeen children only had at least one completed story at age 5, and 14 children only completed at least one of these stories at age 7. Of the 106 children studied, 92 had data at age 5 ($M$ = 62.7 months, $SD$ = 3.04 months) and 89 had data at age 7 ($M$ = 88.5 months, $SD$ = 4.68 months), were utilized (Table 1).

Table 1

*Sample Descriptives*

| | | Age 5 ($n$ = 92) | Age 7 ($n$ = 89) | Total Sample ($N$ = 106) |
|---|---|---|---|---|
| Gender | Boys | 41 (44.6%) | 35 (39.3%) | 43 (40.6%) |
| | Girls | 51 (55.4%) | 54 (60.7%) | 63 (59.4%) |
| Maternal Race | Black | 49 (53.3%) | 48 (53.9%) | 57 (53.8%) |
| | White | 30 (32.6%) | 27 (30.3%) | 34 (32.0%) |
| | Other | 13 (14.1%) | 14 (15.8%) | 15 (14.2%) |
| Child Race | Unreported | 32 (34.8%) | 27 (30.3%) | 34 (32.1%) |
| | Black | 23 (25.0%) | 26 (29.2%) | 29 (27.3%) |
| | White | 17 (18.5%) | 16 (18.0%) | 20 (18.9%) |
| | Other | 20 (21.7%) | 20 (22.5%) | 23 (21.7%) |
| Mean Age (Range) | | 62.7 months (56-69) | 88.5 months (77-102) | |
| Randomization Status | EHS | 48 (52.2%) | 48 (53.9%) | 55 (51.9%) |
| | Comparison | 44 (47.8%) | 41 (46.1%) | 51 (48.1%) |
| Teenage Mother | | 32 (34.8%) | 31 (34.8%) | 36 (34.0%) |
| Mother Education | Less Than High School | 27 (29.4%) | 25 (28.1%) | 30 (28.3%) |
| | High School or GED | 21 (22.8%) | 20 (22.5%) | 26 (24.5%) |
| | More than High School | 44 (47.8%) | 44 (49.4%) | 50 (47.2%) |

*Note:* Of the 106 children studied, 92 had data at age 5 and 89 had data at age 7.

At enrollment in the study, 53.8 percent of mothers identified as Black, 32.0 percent as White, and 14.2 percent as Other. Of those identifying as Other, 73.3 percent identified as biracial or multiracial. Racial information was collected through mothers' report for 72 children (67.9%) at enrollment. Mothers did not report the race of the remaining 34 children recruited when mothers were pregnant. The sample included 63 girls (59.4%); 55 children (51.9%) were randomized to EHS. Approximately 34 percent of the current sample had a teenage mother at

the time of enrollment, and 28.3 percent of mothers did not have their high school diploma or GED.

**Procedures**

Data were collected at home visits conducted by examiners when children were 2, 3, 5, and 7 years old. Children completed the videotaped narrative story stem assessment with an examiner at ages 5 and 7. These videotapes were reviewed again and coded by the author and two graduate research assistants, blind to the study hypotheses, for aspects of GCP. Additional measures collected at home visits included observations of mother-child play interactions, maternal interviews, and direct assessments of children's language and academic skills. Also, at each assessment, examiners rated children's behavior.

**Measures**

**Story stems.** The narrative story stems in the current study were drawn from the MacArthur Story Stem Battery (MSSB; Bretherton, Oppenheim, Buchsbaum, Emde, & MacArthur Narrative Group, 1990) and the Family Stories Task (FAST; Shamir, Schudlich, & Cummings, 2001). Each story stem presented children with a social-emotional dilemma or challenge through the use of small dolls (Mom, Dad, and two siblings, each matched to the child participant's gender) and props. Examiners began each story and brought it to the point of high emotional drama and/or conflict, and then the child was invited to tell the examiner what happened next. The full story stem assessment took approximately 25-30 minutes to complete.

The current study utilized children's representations during three stories at Time 1 (age 5): Band-Aid, Hot Soup, and Stolen Candy. In addition to these stories, at Time 2 (age 7), a Bedtime story was also administered. In each story stem, the child was portrayed as wanting something that was prohibited by the parents (see Table 2 for descriptions of story stems). Band-

Aid and Hot Soup involved a child being injured; Stolen Candy and Bedtime involved child defiance.

**Aspects of GCP.** In the current study, a coding scheme was developed based on the theoretical literature and included the following: (1) characteristics of give and take, (2) self-assertion, (3) parental response to rule breaking, and (4) parental response to injury needs (Figure 1). Each aspect was intended to represent the range of security displayed along a continuum.

***Give and take.*** Give and take (G/T) was designed to identify the critical components of the negotiations that occur in GCP. Six characteristics identified in the literature and meant to demonstrate a continuum from insecure-avoidant to secure to insecure-resistant were coded (Table 3). These characteristics included: (1) responsiveness, (2) roles, (3) perspective taking, (4) communication, (5) understanding of goals, and (6) resolution (see Appendix A for additional information). Dyads that had a back-and-forth exchange in relation to the child's goal that included an initiation from one member and a response from the other that remained on the same topic were rated for G/T. For each of the six characteristics, it was determined whether the dyad displayed avoidant, secure, or resistant behavior. The number of indicators of G/T that fell within each of the three categories (avoidant, secure, resistant) was summed, creating three scores.

Coding pairs agreed on the number of secure characteristics of give and take 72.3 to 75.0 percent of the time in the 148 reliability stories (across 44 children), with Kappas ranging from 0.28 to 0.39 ($p = 0.000$). The inter-rater reliability for avoidant characteristics of give and take scores ranged from 0.28 to 0.35 ($p = 0.000$), with coding pairs agreeing 70.7 to 74.7 percent of the time. For resistant characteristics, coders agreed 74.3 to 79.7 of the time (Cohen's Kappa =

Table 2
*Description of Story Stem Narratives in Two Contexts*

| Story Stem | Dilemma |
|---|---|
| Band-Aid (Injury) | While breaking the rules and cooking with a knife, the child cuts his/her hand and screams out for a Band-Aid. The parents rush in to see what happened. |
| Hot Soup (Injury) | As the child is cooking with the mother, he/she is told to wait until the soup cools. The child is impatient and reaches for the hot soup regardless. The child ends up spilling it all over his/her hand. |
| Stolen Candy (Defiance) | While on a trip to a local store, the child asks the parents for a candy. The parents say "no." As the parents turn their backs to walk out of the store the child steals a candy off the shelf, but is caught by the store clerk. |
| Bedtime (Defiance; Age 7 only) | While watching TV with his/her parents, the child is told to go to bed because there is school tomorrow. The child refuses. |

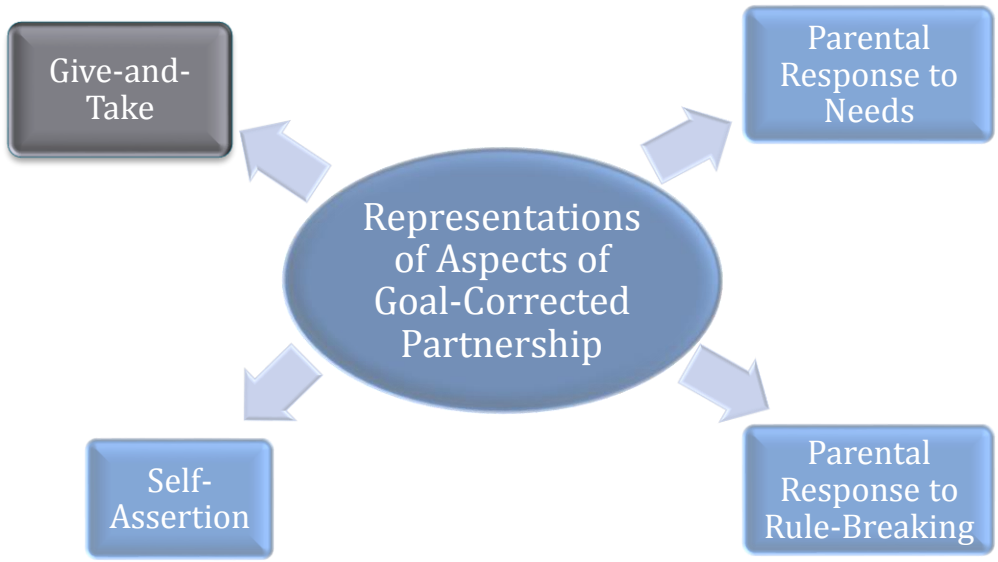


*Figure 1.* Aspects of GCP

Table 3

*Characteristics of Give and Take*

| | A: Avoidant Give and Take | B: Secure Give and Take | C: Resistant Give and Take |
|---|---|---|---|
| Responsiveness | Lack of positive, sensitive well-regulated responsiveness; response does not include sympathy | Mutual responsiveness that is positive, sensitive, well-regulated<br>• e.g., responds to child's self-assertion and parents' limits without demeaning the other | Responsiveness is inconsistently positive, sensitive, well-regulated; Inconsistent sympathy<br>• e.g., child OR parent may display sensitive responsiveness, not both |
| Roles | Unbalanced roles; child has too much autonomy<br>• e.g., child dominates; child is allowed to skip school to stay up and watch TV; child does not give adult opportunity to provide limits | Balanced give and take roles<br>• e.g., parent sets limits, child responds; child is given choices; both have an opportunity to respond; child does not necessarily follow limits, but they aren't overly strict or parent isn't critical | Unbalanced roles; child has too little autonomy<br>• e.g., parent criticizes, child is not given an opportunity to speak |
| Perspective Taking | Parent and child are unable to take each other's perspectives<br>• e.g., parent or child does not offer his/her perspective or listen to the other's perspective | Sophisticated perspective taking<br>• e.g., child weighs right vs. wrong, wants vs. parents' wants, intention vs. accident; both offer perspective and listen to each other | Inconsistency or inability in taking the other's perspective<br>• e.g., the fact that it is a school night is inconsistently emphasized; child struggles to take the perspective of the parent; child OR parent takes perspective, but not both |
| Communication | Communication is dominated by one partner; talk at one another or are not engaged<br>• e.g., child passively self-asserts; communication is primarily the parent providing limits | Clear, direct, balanced communication; interaction flows smoothly; both give and take<br>• e.g., dyad talks with one another | Communication is unclear, involves lying, deception, threats; Child's distress cannot be quelled; illogical conclusion<br>• e.g., child becomes more distressed and it escalates to a breaking point; child whines |

| | A: Avoidant Give and Take | B: Secure Give and Take | C: Resistant Give and Take |
|---|---|---|---|
| Understanding Goals | No active adjustment; Differences are not worked through, but may disappear; no mutual understanding, cooperation, coordination, or co-construction<br>• e.g., passive agreement; persists in what he/she wants, but eventually one stops asserting | Adjustment to mutually understood goals; reciprocal cooperation, coordination, or co-construction; both partners give and take<br>• e.g., compromise, delay of gratification; acknowledgment of each other's goals; each person's goals are met or explained why they can't be met | Both assert themselves without willingness to work toward a resolution<br>• e.g., "You're not the boss of me! - Yes, I am!" I'm not going to bed!– Oh yes, you are."; endless cycle of asserting |
| Resolution | Resolved through incoherence (e.g., suddenly its all better); incoherent to positive ending; someone finally takes action to resolve; there is an abrupt stop and the parent finally takes control<br>• e.g., parent finally stops resisting and gives in; they all went to sleep; they all felt better<br>OR Unresolved after prompt (e.g., the child ends the story without resolving, cutting off further discussion)<br>• e.g., child says "and that's the end" or "I don't know" but not negative | A productive, mutually agreed upon resolution about what the child gets<br>• e.g., one character proposes a solution, the other actively agrees; explicit resolution; positive, without threats or conflict | Unclear resolution; incoherence to negative; inability to accept resolution of distress; agonizing; the story looks like its resolved but it's a sham<br>• e.g., negative ending, the child sneaks out of bed, resulting in further negative consequences after it was previously resolved<br>OR No clear ending (examiner ends because of inappropriateness or escalation)<br>• e.g., "And then mom's head gets smashed…", "This looks like a good time to end this story." |

.24 to 30, $p = 0.000$). Agreement on aspects of give and take at the story level was fair to moderate (Landis & Koch, 1977).

***Self-assertion.*** Children's representations of self-assertion (SA) included whether child characters continued to self-assert to achieve their goals beyond the story stem, and when they did, characteristics of those self-assertions. SA was scored from 0 to 2: (0) no self-assertion, (1) self-assertion with or without the assistance of adults, and (2) dysregulated or extreme self-assertion. Further information is available in the coding manual (Appendix A). Across the 148 reliability stories coded, each coding pair agreed on ratings of children's SA 73.0 to 76.4 percent of the time (Cohen's Kappa = 0.61-0.67, $p = 0.000$).

***Maternal response to rule breaking.*** Maternal response to rule breaking (MR-RB) was coded based on whether mothers acknowledged the rule breaking and invoked limits or punishments. Mothers' responses were rated on a 3-point scale that was reverse coded for analyses: (0) does not acknowledge transgression or provide limits, (1) acknowledges transgression but does not provide limits, and (2) provides limits. See Appendix A for further scoring details. The inter-rater reliability ranged from Kappa = 0.68 to 0.76 ($p = 0.000$), with coding pairs agreeing on ratings 79.1 to 84.5 percent of the time.

***Maternal response to injury needs.*** Finally, mothers' response to injury needs (MR-INJ) for the child characters during the injury stories (Band Aid, Hot Soup) included whether mothers were responsive and provided assistance to the child for meeting his or her need. Mothers received scores from 0 to 2, which were reverse coded, corresponding to: (0) mother does not acknowledge the child characters' need for help, (1) mother acknowledges the need but does not help, and (2) mother meets the child's need for help. In the 84 injury stories coded for reliability,

rating pairs agreed 86.9 to 88.1 percent of the time (Cohen's Kappa = 0.79-0.80, $p = 0.000$), indicating good to very good agreement (Landis & Koch, 1977).

**Additional aspects of stories.** Narrative coherence, mentalization, and parent representations were assessed in children's story stem responses. Narrative coherence, the degree to which the child's response is a logical, elaborative sequence of events, was coded in the current study on a scale of 0 to 3: (0) no response to the story stem, (1) to incoherent, (2) partly incoherent, and (3) coherent. Narrative coherence was averaged across stories at each age. The inter-rater reliability for narrative coherence in 144 stories (4 stories were missing this rating) ranged from 0.45 to 0.49, with coding pairs agreeing 71.5 to 75.0 percent of the time.

Mentalization assessed whether the child was able to portray characters getting into the mind of other characters by talking about what they were thinking or feeling. It also included offering rationales for actions based on these thoughts and feelings and demonstrating future-oriented thinking in characters speech. It involved taking a step out of the immediate situation, such as when a child says, "He thought his mother knew..." or "He felt as if..." The presence/absence of mentalization was coded in each story, and an overall variable representing its frequency across stories at each age was created. Coding pairs agreed on the presence of mentalization in each of the reliability stories 81.1 to 87.8 percent of the time (Cohen's Kappa = 0.21-0.57, $p = 0.000$).

Parent representations assessed the positive, discipline, and negative characteristics that mother characters demonstrated during children's narratives. The positive characteristics included (1) protecting the child from possible or actual harm, (2) successful caretaking actions, such as feeding or taking care of when hurt, (3) affectionate, warm, caring actions, and (4) helping the child or assisting when asked. Discipline included the mother acting as an authority

figure, setting limits or telling the child what to do or well-regulated physical punishment. Negative characteristics included (1) harsh or punitive actions, such as aggression or exaggerated discipline, (2) rejecting or pushing the child away, and (3) ineffectual behavior, such as inability or unwillingness to help when asked. The presence/absence of each characteristic was coded in each story, and an overall variable representing the frequency across stories at each age was created. An overall positive and negative representation code was calculated by summing the number of positive and negative representations, respectively, across stories at each age and was used for analyses.

Across the 139 reliability stories where parent representations were coded, pairs agreed on the presence of positive mother representations in each of the reliability stories 87.8 (protective) to 95.0 (caretaking) percent of the time (Cohen's Kappa = 0.23-0.87, $p = 0.000$). Each coding pair agreed on mothers' discipline 82.7 to 84.9 percent of the time (Cohen's Kappa = 0.65-0.69, $p = 0.000$). For the negative mother representations, the inter-rater reliability ranged from Kappa= 0.32 to 0.66 ($p = 0.000$), with coding pairs agreeing on ratings 94.2 (harsh) to 98.6 (ineffectual) percent of the time.

**Demographic information.** Demographic information, including maternal and child race and child gender, was available through an enrollment interview and data drawn from maternal interviews conducted when families were initially enrolled.

**Developmental assets.**

***Language abilities.*** Children's expressive and receptive language abilities were assessed when children were 2 and 3 years within the Mental Development Index (MDI) of the Bayley Scales of Infant Development (2nd ed.; Bayley, 1993). At age 3, 5, and 7 years, children's receptive language abilities were assessed utilizing the Peabody Picture Vocabulary Test (PPVT

3rd ed.; Dunn & Dunn, 1997). Children's standard scores on these widely used measures, normed on a diverse racial-ethnic sample, were utilized. Descriptive statistics are available in Table 4.

***Self-regulation.*** Children's self-regulation abilities were assessed at each age. At 2 and 3 years, children's emotion regulation was measured on the Behavior Rating Scale (BRS) of the Bayley Scales of Infant Development (2nd ed.; Bayley, 1993). The Emotion Regulation subscale is one of four subscales on the 30-item BRS and is completed by the examiner after administering the Bayley. The examiner rates children on a 5-point scale, with higher ratings indicating greater degrees of the behavior, for seven items (adaptation to change, attention to task, persistence to complete task, cooperation, activity level, sensitivity to stimuli, and negative affect [reverse coded]).

At age 5 and 7, two measures drawn from the Leiter International Performance Scale-Revised (Leiter-R; Roid & Miller, 1997) were used. The first was children's scores on the Attention-Sustained task, a direct measure of children's self-regulation abilities. Children were asked to cross out an age-graded stimulus picture in an array of multiple pictures printed on a page within a specified amount of time (30 to 60 seconds). Children's scores were the total number of items correctly crossed out minus the total number of items incorrectly crossed out. Raw scores were then converted to a normalized scaled score ($M$ = 10, $SD$ = 3).

The second measure was the Leiter-R Examiner Rating Scale. Examiners rated children on a scale of 0 to 3, with higher scores indicating more positive behaviors. The current study utilized the two composite standard scores of Emotions/Regulation (sum of 22 items in the domains of Energy and Feelings, Mood and Regulation, Anxiety, and Sensory Reactivity) and Cognitive/Social (sum of 27 items in the domains of Attention, Organization-Impulse Control,

Table 4
*Descriptives for Developmental Assets*

| Construct | Indicator | Age | *n* | Mean (*SD*) | Range |
|---|---|---|---|---|---|
| Language Abilities | Expressive and Receptive Language-Bayley | 2 years | 68 | 9.13 (2.19) | 4-12 |
| | | 3 years | 71 | 5.99 (2.57) | 1-11 |
| | Receptive Vocabulary | 3 years | 73 | 87.66 (18.16) | 40-113 |
| | | 5 years | 100 | 93.11 (14.71) | 40-118 |
| | | 7 years | 86 | 94.79 (10.53) | 66-116 |
| Self-Regulation | Emotion Regulation-Bayley | 2 years | 79 | 3.97 (.78) | 1.86-5 |
| | | 3 years | 77 | 3.72 (.79) | 1.57-5 |
| | Sustained Attention | 5 years | 97 | 11.71 (2.82) | 4-18 |
| | | 7 years | 90 | 10.61 (2.37) | 5-16 |
| | Emotion Regulation-Leiter | 5 years | 102 | 90.82 (6.70) | 70-113 |
| | | 7 years | 86 | 81.83 (6.49) | 53-92 |
| | Cognitive-Social Regulation | 5 years | 100 | 96.16 (8.36) | 71-117 |
| | | 7 years | 85 | 85.82 (7.69) | 68-112 |

Activity, and Sociability). Raw scores were converted to scaled scores of 1 to 10, with 10 being "average" or "of no concern."

**Emotional and behavioral difficulties.** Finally, children's externalizing and internalizing emotional and behavioral difficulties were drawn from mothers' responses to 39 items of the Child Behavior Checklist (CBCL/4-18; Achenbach, 1991; Achenbach & Rescorla, 2001) at ages 3, 5, and 7. These items included the 19 items on the Aggression subscale, 3 items each from the Attention, Emotionally Reactive, and Sleep Problems subscales, one item each from the Anxious/Depressed and Withdrawn scales, and 8 items addressing other problems. Parents responded to each item by identifying whether it was not true (0), sometimes true (1), or

often true (2). Scores could, therefore, range from 0 to 78. At each age, the sum of these items was utilized.

At age 3, scores ranged from 0 to 54 in the sample of 93 children with data ($M$ = 20.52, $SD$ = 10.91). For the 102 children with data available at age 5, the mean score was 19.55 ($SD$ = 10.42, Range = 3-57). Finally, the mean at age 7 was 8.92 at age 7 ($SD$ = 6.49, $n$ = 93, Range = 0-27).

**Parent reported discipline practices.** Parent-reported discipline practices were available through parent interview data at each age. Information about a) how often children were spanked in the last week, b) how parents would respond if their child continued to play with breakable things, refused to eat, and had a tantrum in a public place (2 and 3 years), and c) how parents would respond if their child hit them (age 3, 5, and 7). The frequency of spanking that occurred in the last week was placed on an 8-point scale, with 7 corresponding to "7 or more times" and 0 through 6 corresponding to the same respective number.

Parents' responses across the three hypothetical situations ("Punishment") were coded on a 4-point scale adapted from the discipline index from the Home Observation for the Measurement of the Environment (HOME; Martoccio, Brophy-Herb, Maupin, & Robinson, 2015) based on whether they would choose to use verbal and/or physical punishment (0 = no endorsement of any verbal or physical punishment, 1 = endorsement of verbal punishment, 2 = endorsement of physical punishment, and 3 = endorsement of both verbal and physical punishment). Parents' degree of harshness of discipline ("Harshness-Hitting") after hypothetically being hit by their child was scored on a 6 point scale based on the discipline index from the HOME (Caldwell & Bradley, 1984, as cited in Love et al., 2001): (0) ignore it, (1) talk to child or hold child's hands until calm, (2) send child to room or give child a timeout, (3) give

child a chore, (4) yell at child, (5) spank child or hit child back. Descriptive statistics are provided in Table 5.

**Parent-child interactions.** Data on mother-child interactions were available from videotaped observations of mothers interacting with their children during semi-structured tasks at age 2 years (three-bag task), 3 years (three-bag and puzzle tasks), and 5 years (Play-Doh task) adapted from the NICHD Study of Early Child Care (NICHD Early Child Care Research Network, 1997). The behaviors coded included child engagement of mother, including orienting toward her through body language, initiating and responding to her, and displaying positive affect, and negativity toward her, including overt or covert displays of anger, hostility, or dislike. Parent sensitivity/supportiveness, including acknowledging and responding to children's cues and guiding play, and intrusiveness, including controlling the focus and pace of play, were also coded. Dyadic mutuality during play was coded at age 2 and assessed shared pleasure, energy, and perspective. Behavior was rated on a 7-point scale from low (1) to high (7) levels. At age 3, children's engagement and the parents' intrusiveness were averaged across the two tasks. Descriptive statistics are available in Table 6.

Table 5
*Descriptives for Parent Reported Discipline Practices*

| Indicator | Age | *n* | Mean (*SD*) | Range |
|---|---|---|---|---|
| Frequency of spanking in the last week | 2 years | 81 | 1.41 (2.02) | 0-7 |
| | 3 years | 94 | 1.12 (1.44) | 0-7 |
| | 5 years | 101 | .73 (1.25) | 0-7 |
| | 7 years | 92 | .21 (.53) | 0-3 |
| Punishment | 2 years | 87 | .18 (.56) | 0-2 |
| | 3 years | 95 | .38 (.73) | 0-3 |
| Harshness-Hitting | 3 years | 89 | 3.04 (1.80) | 1-5 |
| | 5 years | 98 | 3.09 (1.61) | 1-5 |
| | 7 years | 87 | 2.78 (1.56) | 1-5 |

Table 6
*Descriptives for Observed Parent-Child Interactions*

| Indicator | Age | *n* | Mean (*SD*) | Range |
|---|---|---|---|---|
| Child Engagement/Involvement | 2 years | 76 | 4.42 (1.29) | 1-6 |
| | 3 years | 79 | 4.83 (.80) | 2.50-6.50 |
| | 5 years | 97 | 4.91 (.98) | 3-7 |
| | 7 years | 63 | 5.89 (1.05) | 3-7 |
| Child Negativity/Hostility | 2 years | 76 | 1.80 (.95) | 1-5 |
| | 3 years | 79 | 1.25 (.44) | 1-2 |
| | 5 years | 97 | 1.21 (.54) | 1-4 |
| | 7 years | 63 | 1.02 (.14) | 1-2 |
| Maternal Sensitivity/Support | 2 years | 76 | 4.55 (1.16) | 1-6 |
| | 3 years | 77 | 4.69 (1.43) | 1-7 |
| | 5 years | 97 | 4.05 (1.05) | 2-6 |
| | 7 years | 63 | 6.60 (1.35) | 3-9 |
| Maternal Intrusiveness/Structuring | 2 years | 76 | 1.93 (1.05) | 1-5 |
| | 3 years | 79 | 2.15 (.82) | 1-5 |
| | 5 years | 97 | 1.64 (.82) | 1-5 |
| | 7 years | 63 | 4.82 (1.47) | 2-8 |
| Dyadic Mutuality | 2 years | 76 | 4.49 (1.34) | 1-7 |

At age 7, dyads were observed interacting during an unstructured play scenario using the Emotional Availability Scales (EAS; Biringen, Robinson, & Emde, 1998). Behaviors coded included child involvement (child attending to and engaging mother in play; 1 = uninvolving to 9 = over-involving), maternal sensitivity (affectively positive and accepting, perceptive of child's cues, accessible; 1 = highly insensitive to 9 = highly sensitive), and maternal structuring (following child's lead, appropriately setting limits, scaffolding; 9 = overly high to 1 = none). Measures by age are provided in Table 7.

**Analytic Procedures**

**Preliminary analyses.** Based on the exploratory nature of the study and the complexity of these data, preliminary analyses were conducted to determine how the data should be treated in later analyses. The first question was whether children's representations of GCP (G/T, SA, and MR-RB) during the injury and defiance stories could be aggregated across the two contexts.

Table 7
*Measures by Age*

| Age | Developmental Assets and Difficulties | Parent Reported Discipline Practices | Observed Parent-Child Interactions |
|---|---|---|---|
| 2 years | Expressive and Receptive Language- Bayley<br>Emotion Regulation- Bayley | Frequency of spanking in the last week<br>Punishment | Child Engagement<br>Child Negativity<br>Maternal Sensitivity<br>Maternal Intrusiveness<br>Dyadic Mutuality |
| 3 years | Expressive and Receptive Language- Bayley<br>Receptive Vocabulary<br>Emotion Regulation- Bayley<br>Emotional and Behavioral Difficulties | Frequency of spanking in the last week<br>Punishment<br>Harshness-Hitting | Child Engagement<br>Child Negativity<br>Maternal Sensitivity<br>Maternal Intrusiveness |
| 5 years | Receptive Vocabulary<br>Sustained Attention<br>Emotion Regulation- Leiter<br>Cognitive-Social Regulation<br>Emotional and Behavioral Difficulties | Frequency of spanking in the last week<br>Harshness-Hitting | Child Engagement<br>Child Negativity<br>Maternal Sensitivity<br>Maternal Intrusiveness |
| 7 years | Receptive Vocabulary<br>Sustained Attention<br>Emotion Regulation- Leiter<br>Cognitive-Social Regulation<br>Emotional and Behavioral Difficulties | Frequency of spanking in the last week<br>Harshness-Hitting | Child Involvement<br>Child Hostility<br>Maternal Support<br>Maternal Structuring |

A repeated-measures MANOVA was completed at each age to test for significant context effects. If these analyses revealed that the injury stories were consistently similar to one another, but different from the defiance stories (i.e., there was a context effect), representations would be averaged within context. If they were not, they would be averaged across all stories at each age for further analyses. Based on these results, inter-coder reliability would be updated.

The second question was whether to aggregate children's representations across gender for each code or to analyze the data with an on-going focus on gender. A MANOVA was run at each age examining mean differences in the four GCP study variables. In addition, the correlation patterns of children's representations were examined for boys and girls separately. Statistical significance of differences in the boy/girl correlation coefficients was calculated using the Fisher *r*-to-*z* transformation. If significant differences emerged in the average levels or interrelationship of these variables, future analyses would examine boys and girls separately and compared through t-tests and MANOVAs.

**Aim 1 analyses.** Overall mean scores for each aspect of GCP were examined to provide a general sense of the levels at age 5 and age 7. Within each age, common patterns of interrelationship among aspects of GCP were examined through correlations. Representations were also examined to explore differences based on EHS participation and race/ethnicity through MANOVAs that included six GCP variables (secure, avoidant, and resistant G/T, SA, MR-RB, and MR-INJ). To address associations between aspects of GCP and other aspects of narration (coherence, mentalization, and parental representations) within age, correlation analyses were utilized.

Finally, multivariate repeated measures analyses examined developmental change in representations of GCP from age 5 to 7 with the 75 children who had data at both ages. These

analyses involved comparing the three stories at age 5 to the same three stories at age 7, with representations during the Bedtime story being excluded.

**Aim 2 analyses.** To address the second aim, correlations were examined between predictors and children's representations. Specifically, the associations between aspects of GCP and language skills, self-regulation, and behavior problems were explored (Aim 2, Hypotheses 1-3). Also, correlations examined how parents' disciplinary strictness (Aim 2, Hypothesis 4) and characteristics of parent-child interactions (Aim 2, Hypothesis 5) were associated with GCP representations. Where patterns emerged in the association between aspects of GCP and developmental and relational predictors (e.g., a statistically significant correlation between at least two aspects of GCP and the predictor), follow-up multiple regression analyses were conducted using the General Linear Model (GLM) procedure. Predictors at each age (2 through 7 years) were entered individually as independent variables.

# CHAPTER 4: RESULTS

The analyses are based on codes drawn from the over 600 stories coded. The researchers coded a total of 266 stories for aspects of GCP at age 5 (Time 1). This involved 90 Band-Aid, 87 Hot Soup, and 89 Stolen Candy stories. At age 7 (Time 2), the researchers coded a total of 345 stories. Eighty-one Band-Aid stories were coded (7 videos were missing this story), along with 88 Hot Soup, Stolen Candy, and Bedtime stories.

## Preliminary Analyses

**Story context.** A repeated measures MANOVA for children's representations of G/T, SA, and MR-RB at the story level at age 5 ($F(10,75) = 4.11$, $p = 0.000$) was statistically significant (Table 8). Differences were found for SA and MR-RB but not G/T. Children represented significantly lower levels of SA in the Hot Soup story compared to the other two stories, but representations during the Band-Aid (injury) and Stolen Candy (defiance) stories were similar (Figures B4 and B5). Thus, pairwise comparisons did not differ by context for SA. For MR-RB, a context effect was found, with children representing significantly higher levels of limit setting during the Stolen Candy story compared to the two injury stories, which appeared similar at age 5 in terms of levels of MR-RB represented.

The repeated measures MANOVA at age 7 was also statistically significant ($F(15,65) = 3.99$, $p = 0.000$). Specifically, differences emerged for avoidant and resistant characteristics of G/T, SA, and MR-RB. However, pairwise comparisons indicated that there was not a context effect for any of these variables. Rather, representations of avoidant G/T were significantly lower during the Hot Soup story compared to all other stories and representations of resistant G/T were significantly higher during the Bedtime story compared to all other stories. For SA,

there were significantly lower representations during the Hot Soup story compared to the other three stories. For MR-RB, only the Hot Soup story differed from the two defiance stories.

Differences between representations during the injury and defiance stories only emerged for MR-RB at age 5. Therefore, representations were aggregated across both story contexts in all further analyses.

Table 8
*Repeated Measures MANOVA Results Testing for Context Effects at Age 5 and 7*

| Aspect | Age 5 | Age 7 |
|---|---|---|
| | $F_{(2, 168)}$ | $F_{(3, 237)}$ |
| Secure G/T | 1.41 | 2.02 |
| Avoidant G/T | 1.50 | 6.10** |
| Resistant G/T | 2.11 | 9.19** |
| SA | 6.47** | 5.74** |
| MR-RB | 11.84** | 6.99** |

*$p < .05$ **$p < .01$

***Inter-coder reliability.*** Inter-coder reliability was recalculated in light of these findings by aggregating across stories within children ($n$ = 44 children). The intra-class correlations (ICC) averaged across the three coders ranged from 0.72 to 0.95, indicating a moderate to high degree of agreement (see Table 9).

Table 9
*Inter-Coder Reliability Across Aggregated Stories and Ages*

| Aspect | Lower Bound | Average |
|---|---|---|
| Secure G/T | .867 | .908 |
| Avoidant G/T | .667 | .797 |
| Resistant G/T | .526 | .718 |
| SA | .870 | .915 |
| MR-RB | .915 | .949 |
| MR-INJ | .902 | .942 |

*Note*. All values were statistically significant at the $p < 0.01$ level

**Gender.** A MANOVA indicated there was a significant effect of gender on representations of GCP at age 5 ($F(6,85) = 3.50$, $p = 0.004$). Differences emerged in children's representations of secure characteristics of G/T ($F(1,90) = 4.20$, $p = 0.043$), avoidant characteristics of G/T ($F(1,90) = 4.15$, $p = 0.045$), MR-RB ($F(1,90) = 4.23$, $p = 0.043$), and MR-INJ ($F(1,90) = 10.04$, $p = 0.002$). However, the MANOVA at age 7 did not reveal a significant gender effect overall ($F(6,82) = 2.29$, $p = 0.090$).

Interrelationship among the aspects of GCP at age 5 revealed no significant gender differences (see Table 10). However, at age 7 the relationship between avoidant G/T and SA for girls was stronger than for boys ($z = 3.11$, $p = 0.002$; see Table 11). A significant gender difference also emerged between MR-INJ and resistant G/T ($z = -2.34$, $p = 0.019$). Based on these findings and those of the MANOVAs, later analyses examined the representations of boys and girls separately. Noteworthy aspects of these differences are highlighted among those analyses.

**Aim 1: Average Levels of Study Variables**

**G/T.** Across the three stories coded at age 5, only 22.8 percent of children ($n = 21$) represented a back-and-forth exchange that permitted coding of secure and insecure characteristics. Across the whole sample, average levels of secure characteristics of G/T were greater than avoidant, with average levels of resistant characteristics being considerably lower (Table 12). Seventy-three percent of children ($n = 65$) represented G/T at age 7, with higher whole sample averages of G/T but consistently higher secure characteristics, followed by avoidant and resistant (Table 13).

At age 5, girls represented significantly more secure and avoidant characteristics than boys (Table 12). Girls continued to represent significantly more secure characteristics than boys

Table 10
*Correlations Among Aspects of GCP by Gender (Age 5)*

| Aspect | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 1. Secure G/T | | .49** | .40** | .00 | .19 | -.20 |
| 2. Avoidant G/T | .56** | | .56** | -.02 | .20 | -.18 |
| 3. Resistant G/T | .42** | .64** | | -.05 | .23 | -.17 |
| 4. SA | .24† | .26† | .21 | | .15 | .00 |
| 5. MR-RB | .14 | .12 | .22 | .13 | | -.05 |
| 6. MR-INJ | .00 | .07 | .02 | -.01 | .09 | |

*Note*. Intercorrelations for boys ($n$ = 41) are presented above the diagonal, and intercorrelations for girls ($n$ = 51) are presented below the diagonal.
†$p < .10$ *$p < .05$ **$p < .01$

Table 11
*Correlations Among Aspects of GCP by Gender (Age 7)*

| Aspect | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 1. Secure G/T | | .45** | .36* | .02 | .31† | .27 |
| 2. Avoidant G/T | .20 | | .65** | -.08 | .37* | .16 |
| 3. Resistant G/T | .18 | .55** | | -.10 | .39* | .36* |
| 4. SA | .38** | .55** | .33* | | -.24 | -.24 |
| 5. MR-RB | .39** | .14 | .23† | .04 | | .22 |
| 6. MR-INJ | .31* | -.12 | -.15 | .13 | .13 | |

*Note.* Intercorrelations for boys ($n$ = 35) are presented above the diagonal, and intercorrelations for girls ($n$ = 54) are presented below the diagonal.
†$p < .10$ *$p < .05$ **$p < .01$

at age 7, but a similar number of avoidant characteristics were found (Table 13). The number of secure, avoidant, and resistant characteristics of G/T represented within stories and ages are displayed in Appendix B (Figures B1-B3).

**SA.** Across the three stories coded at age 5, there was a low average SA level (Table 12; see story level information in Figure B4). At age 7, the average score was higher, although still below the mid-point of the scale (Table 13). Girls and boys represented similar levels of SA at both ages.

Table 12
*Mean Scores for Aspects of GCP at Age 5*

| Aspect | Girls ($n$ = 51) | | Boys ($n$ = 41) | | Overall ($n$ = 92) | |
|---|---|---|---|---|---|---|
| | *M (SD)* | Range | *M (SD)* | Range | *M (SD)* | Range |
| Secure G/T* | .42 (.86) | 0-4 | .12 (.39) | 0-2 | .29 (.70) | 0-4 |
| Avoidant G/T* | .30 (.58) | 0-2 | .09 (.33) | 0-1.50 | .21 (.49) | 0-2 |
| Resistant G/T | .10 (.27) | 0-1.33 | .05 (.20) | 0-1 | .08 (.24) | 0-1.33 |
| SA | .59 (.35) | 0-1.67 | .69 (.40) | 0-1.33 | .63 (.38) | 0-1.67 |
| MR-RB* | .94 (.52) | 0-2 | .71 (.54) | 0-2 | .84 (.54) | 0-2 |
| MR-INJ** | .85 (.87) | 0-2 | .36 (.57) | 0-2 | .63 (.79) | 0-2 |

*Note.* Asterisks represent statistically significant differences in scores between girls and boys.
*$p < .05$ **$p < .01$

Table 13
*Mean Scores for Aspects of GCP at Age 7*

| Aspect | Girls ($n$ = 54) | | Boys ($n$ = 35) | | Overall ($n$ = 89) | |
|---|---|---|---|---|---|---|
| | *M (SD)* | Range | *M (SD)* | Range | *M (SD)* | Range |
| Secure G/T** | 1.39 (1.25) | 0-5 | .63 (1.01) | 0-4.5 | 1.09 (1.22) | 0-5 |
| Avoidant G/T | .81 (.77) | 0-3.5 | .52 (.63) | 0-2.25 | .70 (.73) | 0-3.50 |
| Resistant G/T | .51 (.53) | 0-2 | .34 (.43) | 0-1.50 | .44 (.50) | 0-2 |
| SA | .74 (.32) | 0-1.50 | .76 (.44) | 0-2 | .75 (.37) | 0-2 |
| MR-RB | 1.35 (.46) | .25-2 | 1.16 (.57) | 0-2 | 1.28 (.51) | 0-2 |
| MR-INJ | 1.23 (.77) | 0-2 | 1.13 (.74) | 0-2 | 1.19 (.76) | 0-2 |

*Note.* Asterisks represent statistically significant differences in scores between girls and boys.
**$p < .01$

**MR-RB.** At age 5, the average score for MR-RB was low (Table 12). The average score at age 7 was just below the mid point of the scale (Table 13). Girls represented significantly higher levels of limit setting than boys at age 5, but gender differences were not found at age 7.

**MR-INJ.** The average score for MR-INJ at age 5 was under 1.0 (not acknowledging child character's need) and at age 7 it was over 1.0 (acknowledging need; Tables 12 and 13). Girls represented significantly higher levels of maternal help at age 5, but there was not a significant gender difference at age 7. Mean scores for MR-INJ within stories and ages are displayed in Appendix B (Figure B6).

**Aim 1: Interrelationship Among Aspects of GCP**

Among the aspects of GCP at age 5, there were significant positive correlations between the numbers of secure, avoidant, and resistant characteristics of G/T (Table 14). The only other statistically significant correlation was between MR-RB and G/T. Children who represented more resistant characteristics represented mothers as providing more limits.

Consistent with the results at age 5, there were positive correlations among the number of secure, avoidant, and resistant characteristics of G/T at age 7 (Table 15). G/T was also positively associated with MR-RB, indicating mothers were represented as providing greater limits when more G/T was present. Additional and more differentiated correlations were found at age 7 compared to age 5, however. Children who represented more secure G/T represented mothers who provided more help in response to injury needs. Those who represented more avoidant G/T also represented more frequent self-assertion.

Correlations between the aspects of GCP at age 5 and age 7 revealed only one statistically significant association. MR-INJ at age 5 was correlated with secure G/T at age 7 ($r = 0.29$, $p = 0.013$). Representations of mothers as providing more help at age 5 were related to more secure back-and-forth negotiations at age 7.

As previously mentioned, there were no significant differences in the relationship among these aspects of GCP by gender at age 5 (Table 10). At age 7, girls who represented greater levels of self-assertion also represented more avoidant characteristics of G/T (Table 11). This relationship was not found for boys. Further, boys who represented more characteristics of resistant G/T represented mothers who provided more help when child characters were injured, but this was not true for girls. There were no cross-age gender differences in the associations between aspects of GCP at age 5 and 7.

Table 14

*Correlations Among Aspects of GCP at Age 5*

| Aspect | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| 1. Secure G/T | | | | | |
| 2. Avoidant G/T | .57** | | | | |
| 3. Resistant G/T | .42** | .62** | | | |
| 4. SA | .12 | .12 | .08 | | |
| 5. MR-RB | .18† | .18† | .23* | .11 | |
| 6. MR-INJ | .03 | .08 | .01 | -.05 | .10 |

*$p < .05$ **$p < .01$

Table 15

*Correlations Among Aspects of GCP at Age 7*

| Aspect | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| 1. Secure G/T | | | | | |
| 2. Avoidant G/T | .32** | | | | |
| 3. Resistant G/T | .27* | .59** | | | |
| 4. SA | .20† | .26* | .14 | | |
| 5. MR-RB | .39** | .25* | .31** | -.11 | |
| 6. MR-INJ | .30** | -.01 | .03 | -.04 | .18† |

†$p < .10$ *$p < .05$ **$p < .01$

**Aim 1: Relationship with Narrative Coherence**

The average level of narrative coherence at age 5 was 2.49 (*SD* = 0.56); most stories were fully coherent. Analyses examining the relationship between aspects of GCP and narrative coherence revealed a statistically significant relationship with MR-RB (Table 16). Children with higher overall narrative coherence represented mothers who set more limits.

At age 7, the average level of narrative coherence was 2.77 (*SD* = 0.36). Narrative coherence averaged across the four stories was significantly correlated with the number of secure characteristics of G/T, SA, MR-RB, and MR-INJ (Table 16). Children who told more coherent stories represented more secure characteristics of G/T, children who self-asserted less, and mothers who provided more limits and help. Story level narrative coherence scores at each age are presented in Figure B7.

Table 16

*Correlations Between Narrative Coherence and Aspects of GCP at Age 5 and Age 7*

| Aspect | Narrative Coherence | | | | | |
|---|---|---|---|---|---|---|
| | Girls | | Boys | | Overall | |
| | Age 5 (*n* =51) | Age 7 (*n* =54) | Age 5 (*n* =41) | Age 7 (*n* =35) | Age 5 (*n* =92) | Age 7 (*n* =89) |
| Secure G/T | .00 | .28* | .05 | .34* | .06 | .34** |
| Avoidant G/T | -.03 | -.13 | .00 | .12 | .03 | .01 |
| Resistant G/T | -.20 | -.36** | .05 | .06 | -.07 | -.15 |
| SA | -.12 | .02 | -.10 | -.63** | -.14 | -.32** |
| MR-RB | .11 | .27$^{\dagger}$ | .30$^{\dagger}$ | .46** | .24* | .38** |
| MR-INJ | -.04 | .22 | .28$^{\dagger}$ | .34* | .15 | .28** |

$^{\dagger}p < .10$ *$p < .05$ **$p < .01$

Girls' narratives were more coherent at age 5 ($M$ = 2.62, $SD$ = 0.53) than boys' ($M$ = 2.34, $SD$ = 0.32; $t(90) = 2.44$, $p$ = 0.017). At age 7, however, girls and boys represented narratives of similar coherence ($M$ = 2.83, $SD$ = 0.32 and $M$ = 2.69, $SD$ = 0.40, respectively; $t(87) = 1.79$, $p$ = 0.077). When the correlations between narrative coherence and GCP were examined in girls and boys separately, at age 5 there were no significant differences (Table 16). At age 7, the number of resistant characteristics of G/T was significantly correlated with narrative coherence for girls, but there was not a relationship for boys ($z$ = -1.96, $p$ = 0.050). Girls that represented more resistant G/T told less coherent narratives. There was also a statistically significant gender difference in the relationship between SA and narrative coherence ($z$ = 3.40, $p$ = 0.001). Boys who represented a greater amount of SA had less coherent narratives, whereas SA was not associated with narrative coherence for girls.

Narrative coherence at age 5 was significantly correlated with narrative coherence at age 7 ($r$ = 0.52, $p$ = 0.000). There were no statistically significant associations between narrative coherence and aspects of GCP across ages. There were also no significant differences in these associations by gender.

**Aim 1: Relationship with Mentalization**

Mentalization was present in at least one story for 23 children (25.0%) at age 5 and the number of stories that included mentalization at age 5 was significantly correlated with the average number of secure characteristics of G/T (Table 17). The frequency of mentalization was also correlated with children's representations of SA. Children who represented more stories that included mentalization represented more secure G/T and higher levels of SA.

Mentalization was represented by 47 children (52.8%) at age 7 and a statistically significant relationship was found between the number of stories that included mentalization and the number of secure characteristics of G/T. Consistent with results at age 5, children that represented more mentalization also represented more secure G/T.

There were no significant gender differences in the number of stories that included mentalization at age 5 or age 7. The only correlation that differed statistically by gender was with secure characteristics of G/T at age 5 ($z = 2.31$, $p = 0.021$). For girls but not boys, telling more stories with mentalization was associated with a greater number of secure characteristics of G/T.

The number of stories that included mentalization at age 5 was significantly correlated with the number of stories that included mentalization at age 7 ($r = 0.24$, $p = 0.042$). Children that represented more stories that included mentalization at age 5 represented more secure G/T at age 7 ($r = 0.25$, $p = 0.034$). Similarly, more secure G/T at age 5 was associated with more mentalization at age 7 ($r = 0.29$, $p = 0.013$). There were no other statistically significant associations between mentaliztion and aspects of GCP across ages.

A gender difference emerged in the association between SA at age 5 and mentalization at age 7 ($z = 2.43$, $p = 0.015$). Boys who represented higher SA at age 5 included mentalization in

Table 17

*Correlations Between Mentalization and Aspects of GCP at Age 5 and Age 7*

| Aspect | Number of Stories Including Mentalization | | | | | |
|---|---|---|---|---|---|---|
| | Girls | | Boys | | Overall | |
| | Age 5 (*n* =51) | Age 7 (*n* =54) | Age 5 (*n* =41) | Age 7 (*n* =35) | Age 5 (*n* =92) | Age 7 (*n* =89) |
| Secure G/T | .33* | .35** | -.16 | .18 | .27* | .33** |
| Avoidant G/T | .17 | .02 | -.14 | .29 | .13 | .13 |
| Resistant G/T | .19 | .16 | -.13 | .11 | .12 | .16 |
| SA | .36** | .15 | .07 | .27 | .22* | .18 |
| MR-RB | .05 | .06 | -.19 | .07 | .00 | .09 |
| MR-INJ | -.03 | .06 | .02 | -.14 | .04 | .01 |

*$p < .05$ **$p < .01$

fewer stories at age 7 ($r$ = -0.45, $p$ = 0.009), but this association was not found for girls ($r$ = .11, $p$ = 0.490). There were no other gender differences in these cross-age associations.

**Aim 1: Relationship with Parent Representations**

Fifty-nine children (64.1%) represented mothers as displaying at least one positive characteristic across the three stories at age 5. This included protective ($n$ = 14), caretaking ($n$ = 42), affectionate ($n$ = 16), and helpful ($n$ = 5). The average number of positive characteristics was 1.20 ($SD$= 1.28) out of possible 12. Sixty-seven children (72.8%) represented mothers as displaying discipline at least once in the three stories at age 5 ($M$ = 1.05, $SD$ = 0.83). Only 9 children (9.8%) represented mothers as displaying at least one negative characteristic across the three stories, with an average of 0.12 ($SD$ = 0.42) out of a possible 9 characteristics. Five mothers were represented as harsh, two as rejecting, and three as ineffectual.

There was a significant relationship between MR-RB and positive and disciplinary maternal representations at age 5 (Table 18). Also, MR-INJ was positively correlated with positive mother representations. Mothers rated as more positive were represented as providing more limits and help when the child was injured. SA was only associated with negative

representations of mothers; self-asserting at higher levels was associated with mothers represented as more negative.

At age 7, 79 children (88.8%) represented at least one positive mother characteristic across the four stories. This included protective ($n$ = 30), caretaking ($n$ = 71), affectionate ($n$ = 18), and helpful ($n$ = 10). The average number of positive characteristics was 1.97 ($SD$ = 1.29) out of possible 16. Almost all children ($n$ = 82, 92.1%) represented mothers as displaying discipline at least once in the four stories at age 7 ($M$ = 2.20, $SD$ = 1.20). Few children represented at least one negative maternal characteristic across the four stories at age 7, however ($n$ = 14, 15.7%), with an average of 0.17 ($SD$ = 0.41) out of a possible 12 characteristics. Nine mothers were represented as harsh and six as ineffectual.

Examining the relationship between representations of mothers at age 7 and aspects of GCP, unlike earlier, positive representations of mothers were associated with secure G/T and negative representations with insecure G/T. Specifically, children that represented more secure G/T also represented mothers as more positive and disciplinary (Table 19). Conversely, resistant G/T was associated with disciplinary and negative representations. There were no associations between representations of mothers and SA (Table 19). Similar to age 5 findings, MR-RB was strongly correlated with disciplinary representations. MR-INJ was positively correlated with positive and disciplinary representations.

A MANOVA at age 5 indicated that maternal representations differed based on gender ($F$(3,88) = 5.35, $p$ = 0.002). Specifically, girls represented mothers who were more often positive ($M$ = 1.63, $SD$ = 1.43) than boys ($M$ = 0.66, $SD$ = 0.79; $F$(1,90) = 15.10, $p$ = 0.000). At age 7, there was not an effect of gender on maternal representations ($F$(1,85) = 2.06, $p$ = 0.112).

Table 18

*Correlations Between Mother Representations and Aspects of GCP at Age 5*

| Aspect | Girls | | | Boys | | | Overall | | |
|---|---|---|---|---|---|---|---|---|---|
| | Positive | Discipline | Negative | Positive | Discipline | Negative | Positive | Discipline | Negative |
| Secure G/T | .05 | -.06 | -.01 | -.02 | .14 | -.11 | .12 | .02 | -.02 |
| Avoidant G/T | .16 | -.12 | -.01 | -.15 | .13 | -.10 | .17 | -.02 | -.02 |
| Resistant G/T | .19 | .04 | .09 | .09 | .29† | -.09 | .19† | .14 | .05 |
| SA | .05 | .00 | .34* | .16 | .22 | .19 | .02 | .08 | .26* |
| MR-RB | .22 | .79** | .01 | .20 | .83** | .23 | .27* | .81** | .09 |
| MR-INJ | .70** | .09 | .00 | .52** | -.05 | -.13 | .70** | .08 | -.02 |

†$p < .10$ *$p < .05$ **$p < .01$

Table 19

*Correlations Between Mother Representations and Aspects of GCP at Age 7*

| Aspect | Girls | | | Boys | | | Overall | | |
|---|---|---|---|---|---|---|---|---|---|
| | Positive | Discipline | Negative | Positive | Discipline | Negative | Positive | Discipline | Negative |
| Secure G/T | .47** | .48** | -.01 | .03 | .33 | -.19 | .37** | .46** | -.07 |
| Avoidant G/T | .17 | .07 | .10 | .23 | .35* | .39* | .08 | .21† | .19† |
| Resistant G/T | .13 | .21 | .35** | -.16 | .46** | .25 | .07 | .33** | .31** |
| SA | .17 | .10 | .12 | -.29† | -.22 | -.01 | -.02 | -.06 | .06 |
| MR-RB | .26† | .80** | .06 | -.15 | .84** | -.06 | .13 | .82** | .00 |
| MR-INJ | .33* | .14 | -.21 | .27 | .40* | -.08 | .32** | .25* | -.16 |

†$p < .10$ *$p < .05$ **$p < .01$

Cross-age associations revealed a negative correlation between MR-RB at age 5 and negative representations of mothers at age 7 ($r$ = -0.27, $p$ = 0.017). Mothers who were represented as providing limits more often at age 5 were represented as less harsh, rejecting, and ineffectual. There also was an association between negative representations of mothers at age 5 and avoidant G/T at age 7 ($r$ = 0.36, $p$ = 0.001). Children who represented mothers as harsh, rejecting, or ineffectual more often at age 5 represented more characteristics of avoidant G/T at age 7.

The only significant gender difference was in the association between disciplinary representations at age 5 and MR-RB at age 7 ($z$ = -2.12, $p$ = 0.034). Boys who included more disciplinary representations at age 5 represented mothers as providing more limits at age 7 ($r$ = .36, $p$ = 0.042), but this association was not found for girls ($r$ = -0.14, $p$ = 0.369).

**Aim 1: Relationship with EHS Participation**

MANOVAs compared the representations at age 5 and 7 of children who participated in EHS and those that were part of the comparison group. There were no statistically significant differences in any aspects of GCP at either age. There also were no statistically significant gender differences in the representation of GCP at age 5 or 7 based on EHS status.

**Aim 1: Relationship with Race/Ethnicity**

The MANOVAs examining the difference between GCP at age 5 and 7 based on mothers' racial/ethnic background were not statistically significant. MANOVAs run at age 5 and 7 for boys and girls separately also did not reveal differences based on mothers' racial-ethnic background.

**Aim 1: Change in GCP From Age 5 To 7**

Changes from age 5 to age 7 in each aspect of GCP in the three consistent stories of Band-Aid, Hot Soup, and Stolen Candy were examined through repeated measures analyses in the sample of 75 children that had data at both time points (Table 20). The MANOVA was statistically significant ($F(6,69) = 12.91$, $p = 0.000$). Specifically, statistically significant differences were found in the average number of secure ($F(1,74)= 26.88$, $p= 0.000$), avoidant ($F(1,74)= 28.31$, $p= 0.000$), and resistant characteristics of G/T ($F(1,74)= 41.15$, $p= 0.000$). Children represented significantly more G/T characteristics at age 7 compared to age 5 (Table 20).

There also was a statistically significant difference in the representation of MR-RB ($F(1,74) = 31.53$, $p = 0.000$) and MR-INJ ($F(1,74) = 21.05$, $p = 0.000$). Children represented mothers as doing more limit setting and providing more help at age 7 (Table 20). There were no significant differences in the representations of child characters' SA. Analyses examining change across time based on gender indicated no statistically significant differences.

**Aim 2: Predictors of Representations of GCP**

**Correlation analyses.** The pattern of correlations was sparse (Tables 21-28) suggesting limited prediction of GCP from earlier assets. There were some statistically significant patterns of correlations, however.

***Language abilities.*** Children's language abilities were unrelated to representations of G/T at age 5 (Table 21), but a pattern did emerge with other aspects of GCP (Table 22). Children with greater 24-month language scores represented child characters that self-asserted at higher levels and mothers who provided greater limits. Additionally, children with greater receptive vocabulary at age 3 represented higher levels of SA and MR-INJ.

Table 20
*Descriptive Statistics for the Aspects of GCP from Age 5 to 7 (n = 75)*

| Aspect | Time | Mean (SD) | Range |
|---|---|---|---|
| Secure G/T** | 1 | 0.33 (.76) | 0-4 |
| | 2 | 1.16 (1.39) | 0-5.33 |
| Avoidant G/T** | 1 | 0.22 (.51) | 0-2 |
| | 2 | 0.62 (.78) | 0-3 |
| Resistant G/T** | 1 | .09 (.26) | 0-1.33 |
| | 2 | .48 (.51) | 0-2 |
| SA | 1 | 0.67 (.36) | 0-1.67 |
| | 2 | 0.72 (.40) | 0-.1.67 |
| MR-RB** | 1 | 0.89 (.53) | 0-2 |
| | 2 | 1.22 (.54) | 0-2 |
| MR-INJ** | 1 | 0.62 (.78) | 0-2 |
| | 2 | 1.19 (.75) | 0-2 |

*Note.* Asterisks represent statistically significant differences in scores between ages.
**$p < .01$

A pattern emerged between children's receptive vocabulary at age 5 and representations of G/T at age 7 (Table 23). Overall, children with higher language abilities represented more characteristics of G/T. However, there were no associations with the other aspects of GCP (Table 24). There were no consistent patterns of gender differences in the association between children's language skills and aspects of GCP at age 5 or age 7 (Tables 21-24).

***Self-regulation.*** There were no consistent patterns between children's regulation abilities and their representations of GCP at age 5 (Tables 21 and 22). At age 7, regulation abilities were not consistently related to representations of G/T (Table 23), but a pattern did emerge with other aspects of GCP (Table 24). At age 7, emotion regulation was significantly associated with representation of SA and MR-INJ. Children that were rated as having better control over their emotional reactions represented child characters asserting their autonomy at lower levels and mothers who provided a greater amount of help in response to injury.

Table 21

*Correlations Between Parent and Child Predictors and the Number of Characteristics of G/T at Age 5*

| | | Girls | | | Boys | | | Overall | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Secure | Avoidant | Resistant | Secure | Avoidant | Resistant | Secure | Avoidant | Resistant |
| Expressive and Receptive | 2 years | .14 | .19 | .08 | .25 | .22 | .18 | .17 | .21 | .13 |
| Language (Bayley) | 3 Years | -.04 | -.23 | .07 | -.02 | .08 | -.13 | -.02 | -.12 | .02 |
| Receptive Vocabulary | 3 Years | .19 | .11 | .18 | .01 | .02 | -.25 | .10 | .05 | .05 |
| | 5 Years | .07 | .01 | .20 | .09 | .18 | .06 | .08 | .07 | .15 |
| Emotion Regulation | 24 Mo. | .21 | .08 | .10 | -.31† | -.07 | -.36* | .06 | .04 | -.03 |
| (Bayley) | 3 Years | .16 | -.07 | -.03 | -.35† | -.02 | -.12 | .08 | -.04 | -.04 |
| Sustained Attention | 5 Years | .17 | .11 | .10 | -.15 | .04 | .03 | .13 | .14 | .10 |
| Emotion Regulation (Leiter) | 5 Years | -.01 | .03 | .06 | -.05 | -.03 | -.12 | .03 | .07 | .02 |
| Cognitive-Social Regulation | 5 Years | .05 | -.01 | -.01 | .03 | .03 | -.16 | .10 | .07 | -.03 |
| Emotional and Behavioral | 3 Years | -.08 | .09 | .02 | -.14 | -.11 | -.06 | -.12 | -.02 | -.04 |
| Difficulties | 5 Years | .06 | .18 | .04 | -.22 | -.19 | -.28† | -.01 | .06 | -.08 |
| Spanking Frequency | 24 Mo. | .23 | .09 | .12 | -.11 | .01 | -.12 | .13 | .08 | .07 |
| | 3 Years | .11 | .18 | .15 | -.21 | -.13 | -.10 | .00 | .06 | .04 |
| | 5 Years | .40** | .21 | .32* | -.21 | -.19 | -.18 | .27* | .12 | .17 |
| Punishment | 24 Mo. | .14 | .42** | .00 | -.09 | -.07 | -.07 | .11 | .31** | .01 |
| | 3 Years | .19 | .39** | -.06 | -.11 | .05 | -.18 | .03 | .18 | -.13 |
| Harshness-Hitting | 3 Years | .07 | .08 | -.19 | -.04 | .08 | .15 | -.01 | .03 | -.08 |
| | 5 Years | .19 | .19 | .04 | -.16 | .04 | .00 | .04 | .09 | .00 |

†$p < .10$ *$p < .05$ **$p < .01$

Table 22

*Correlations Between Parent and Child Predictors and Aspects of GCP at Age 5*

| | | Girls | | | Boys | | | Overall | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | SA | MR-RB | MR-INJ | SA | MR-RB | MR-INJ | SA | MR-RB | MR-INJ |
| Expressive and Receptive Language (Bayley) | 2 years | .15 | .12 | .05 | .55** | .30 | -.06 | .34** | .26* | .04 |
| | 3 Years | -.06 | .20 | .14 | .35† | .16 | .08 | .12 | .20 | .14 |
| Receptive Vocabulary | 3 Years | .26 | .11 | .38* | .34† | .21 | .28 | .31* | .09 | .28* |
| | 5 Years | .14 | .07 | .29* | .48** | .38* | -.07 | .30** | .20† | .16 |
| Emotion Regulation (Bayley) | 24 Mo. | -.02 | .20 | .00 | .34† | .05 | .25 | .18 | .15 | .12 |
| | 3 Years | .09 | .01 | .04 | .21 | .23 | .12 | .11 | .12 | .09 |
| Sustained Attention | 5 Years | .07 | .18 | -.05 | .15 | .06 | -.15 | .06 | .16 | .00 |
| Emotion Regulation (Leiter) | 5 Years | -.15 | -.02 | .07 | .20 | .21 | -.06 | -.02 | .13 | .10 |
| Cognitive-Social Regulation | 5 Years | -.19 | .01 | -.00 | .18 | .39* | .07 | -.03 | .25* | .12 |
| Emotional and Behavioral Difficulties | 3 Years | .14 | -.05 | .11 | -.24 | -.18 | .05 | -.05 | -.15 | .03 |
| | 5 Years | -.02 | .06 | .08 | -.09 | -.25 | .29† | -.05 | -.08 | .13 |
| Spanking Frequency | 24 Mo. | .32† | .13 | .02 | -.17 | -.20 | -.01 | .05 | -.01 | .02 |
| | 3 Years | .07 | .10 | .01 | -.02 | -.04 | -.20 | .03 | .02 | -.09 |
| | 5 Years | .22 | .25† | .04 | .30 | -.09 | .01 | .24* | .13 | .05 |
| Punishment | 24 Mo. | .21 | .03 | -.14 | .07 | -.19 | .20 | .12 | -.03 | .00 |
| | 3 Years | -.03 | .17 | -.14 | .13 | -.14 | -.06 | .10 | -.04 | -.15 |
| Harshness-Hitting | 3 Years | .24 | -.18 | .26 | -.11 | -.23 | -.08 | .10 | -.24* | .07 |
| | 5 Years | .33* | .09 | .10 | -.03 | -.04 | -.12 | .17 | -.01 | -.04 |

†$p < .10$ *$p < .05$ **$p < .01$

Table 23

*Correlations Between Child and Parent Predictors and the Number of Characteristics of G/T at Age 7*

| | | Girls | | | Boys | | | Overall | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Secure | Avoidant | Resistant | Secure | Avoidant | Resistant | Secure | Avoidant | Resistant |
| Expressive and Receptive | 2 years | .12 | .10 | .15 | .05 | .31 | .05 | .13 | .20 | .13 |
| Language (Bayley) | 3 Years | .07 | .19 | .24 | .02 | .21 | .26 | .06 | .20 | .25* |
| Receptive Vocabulary | 3 Years | .40* | .34* | .13 | -.02 | .14 | -.02 | .21† | .24† | .06 |
| | 5 Years | .38** | .18 | .33* | .18 | .17 | .11 | .27* | .17 | .23* |
| | 7 Years | .35* | .07 | .23 | .03 | .26 | .10 | .20† | .09 | .15 |
| Emotion Regulation | 2 years | .07 | -.04 | .09 | .05 | -.04 | -.11 | .07 | -.03 | .02 |
| (Bayley) | 3 Years | .09 | -.20 | -.20 | -.17 | .12 | .00 | .05 | -.06 | -.11 |
| Sustained Attention | 5 Years | .06 | .17 | .03 | -.07 | .11 | .27 | .12 | .21† | .18 |
| | 7 Years | -.06 | .07 | -.05 | .00 | .22 | .21 | .01 | .14 | .05 |
| Emotion Regulation | 5 Years | .08 | .11 | .03 | .07 | .20 | .03 | .15 | .19† | .07 |
| (Leiter) | 7 Years | -.08 | -.12 | .04 | -.01 | .16 | .16 | -.02 | .03 | .10 |
| Cognitive-Social | 5 Years | .02 | -.04 | -.08 | -.05 | .16 | -.13 | .08 | .10 | -.04 |
| Regulation | 7 Years | -.09 | -.20 | -.08 | -.12 | .24 | .22 | -.06 | -.01 | .05 |
| Emotional and Behavioral | 3 Years | -.14 | -.06 | -.19 | -.02 | -.09 | -.19 | -.12 | -.09 | -.20† |
| Difficulties | 5 Years | -.11 | -.20 | -.12 | -.16 | -.10 | -.15 | -.13 | -.18 | -.13 |
| | 7 Years | -.05 | -.06 | -.13 | -.27 | -.18 | -.10 | -.10 | -.09 | -.11 |
| Spanking Frequency | 2 years | .12 | -.01 | .10 | -.13 | .12 | .06 | .02 | .04 | .08 |
| | 3 Years | -.03 | .10 | -.05 | -.10 | .31† | .31† | -.07 | .17 | .08 |
| | 5 Years | -.01 | .11 | .20 | .05 | -.02 | .07 | .01 | .07 | .16 |
| | 7 Years | .13 | .31* | .28* | -.16 | .00 | .08 | .08 | .23* | .24* |
| Punishment | 2 years | -.04 | .24 | .02 | .03 | .46** | .37* | .01 | .32** | .14 |
| | 3 Years | .00 | .23 | .10 | -.24 | -.07 | -.16 | -.16 | .06 | -.05 |
| Harshness-Hitting | 3 Years | -.05 | .19 | -.11 | .07 | .01 | .22 | -.04 | .10 | -.01 |
| | 5 Years | .03 | .21 | -.09 | -.10 | -.10 | -.03 | -.04 | .09 | -.08 |
| | 7 Years | .02 | .22 | -.00 | -.17 | .03 | .18 | -.05 | .15 | .05 |

†$p < .10$ *$p < .05$ **$p < .01$

Table 24

*Correlations Between Child and Parent Predictors and Aspects of GCP at Age 7*

| | | Girls | | | Boys | | | Overall | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | SA | MR-RB | MR-INJ | SA | MR-RB | MR-INJ | SA | MR-RB | MR-INJ |
| Expressive and Receptive Language (Bayley) | 2 years | -.14 | .34* | -.10 | -.26 | -.03 | .18 | -.22† | .17 | .08 |
| | 3 Years | -.10 | .01 | .00 | -.14 | .03 | -.02 | -.10 | .02 | -.01 |
| Receptive Vocabulary | 3 Years | .28† | .17 | .15 | -.33 | .16 | .15 | .01 | .13 | .16 |
| | 5 Years | .20 | .19 | .11 | -.28 | .18 | .13 | -.04 | .17 | .12 |
| | 7 Years | .24† | .24† | .31* | -.07 | .24 | -.20 | .11 | .19† | .13 |
| Emotion Regulation (Bayley) | 2 years | -.24 | .13 | -.04 | -.23 | .17 | -.11 | -.23† | .16 | -.07 |
| | 3 Years | -.06 | -.11 | .34* | -.33 | -.14 | .30 | -.16 | -.09 | .32** |
| Sustained Attention | 5 Years | .14 | .21 | .05 | -.24 | .23 | .08 | -.06 | .27* | .08 |
| | 7 Years | .22 | .13 | -.04 | -.07 | .23 | -.11 | .11 | .19† | -.05 |
| Emotion Regulation (Leiter) | 5 Years | .15 | -.07 | -.05 | -.34* | .43* | .05 | -.11 | .21* | .01 |
| | 7 Years | -.11 | .13 | .24† | -.43** | .18 | .19 | -.30** | .17 | .22* |
| Cognitive-Social Regulation | 5 Years | .13 | -.09 | .22 | -.33† | .22 | -.21 | -.14 | .13 | .03 |
| | 7 Years | -.20 | .00 | .26† | -.17 | -.01 | .07 | -.18 | .02 | .19† |
| Emotional and Behavioral Difficulties | 3 Years | -.10 | -.25† | -.20 | .23 | -.21 | .08 | .07 | -.24* | -.09 |
| | 5 Years | -.16 | -.24† | -.21 | .34* | -.44** | -.25 | .04 | -.30** | -.22* |
| | 7 Years | -.11 | -.18 | -.05 | .17 | -.15 | .08 | .01 | -.16 | .00 |
| Spanking Frequency | 2 years | -.05 | -.01 | -.04 | .33† | -.02 | .02 | .15 | -.02 | -.02 |
| | 3 Years | .09 | -.14 | -.04 | -.07 | -.03 | .11 | .00 | -.09 | .02 |
| | 5 Years | .10 | -.03 | .19 | .20 | -.19 | .05 | .14 | -.09 | .14 |
| | 7 Years | .32* | -.07 | -.06 | .02 | .32† | .20 | .20† | .08 | .02 |
| Punishment | 2 years | .05 | .04 | .09 | -.11 | -.01 | -.20 | -.02 | .04 | -.01 |
| | 3 Years | -.01 | .06 | .13 | .15 | -.28 | .07 | .09 | -.17 | .08 |
| Harshness-Hitting | 3 Years | -.09 | -.02 | .04 | .01 | -.01 | .10 | -.04 | -.04 | .05 |
| | 5 Years | .11 | .14 | -.09 | .24 | -.18 | .09 | .18 | -.02 | -.02 |
| | 7 Years | -.03 | .12 | -.05 | -.05 | .27 | .14 | -.04 | .17 | .02 |

†$p < .10$ *$p < .05$ **$p < .01$

There were no patterns of association in analyses by gender at age 5 (Tables 21 and 22). When representations were examined at age 7, a statistically significant correlation emerged between emotion regulation at 5-years and both SA and MR-RB for boys but not girls ($z$ = 2.20, $p$ = 0.028 and $z$ = -2.31, $p$ = 0.021; Table 24). Boys that possessed greater regulation skills represented child characters that asserted at lower levels and mothers that provided greater limits. For girls, these associations were not significant.

***Behavior problems.*** Children's representations of GCP at age 5 were unrelated to their mothers' report of their emotional and behavioral difficulties at ages 3 and 5 (Tables 21 and 22). At age 7, there were no associations with G/T (Table 23), but a pattern did emerge for other aspects of GCP. Children that represented mothers as providing fewer limits had more reported difficulties at age 5 (Table 24). Children with more difficulties at age 5 also represented mothers as providing less help.

A gender difference emerged only between emotional and behavioral difficulties and SA at age 7 (Table 24). Boys but not girls who represented children as self-asserting at higher levels had more reported difficulties at age 5 ($z$ = -2.22, $p$ = 0.026).

***Parent discipline behaviors.*** A pattern between mothers' report of the frequency of spanking and GCP emerged at age 5 (Tables 21 and 22). Specifically, a greater incidence of spanking at age 5 was associated with representations of more secure characteristics of G/T and child characters who self-asserted at a higher level. At age 7, an association was also found between mothers' concurrent report of the frequency of spanking and representations of G/T (Table 23). A greater incidence of spanking was associated with more avoidant and resistant characteristics of G/T. There were no associations with the other aspects of GCP.

Table 25

*Correlations Between Parent-Child Interactions and the Number of Characteristics of G/T at Age 5*

| | | Girls | | | Boys | | | Overall | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Secure | Avoidant | Resistant | Secure | Avoidant | Resistant | Secure | Avoidant | Resistant |
| Child Engagement/ Involvement | 2 years | .16 | -.16 | -.07 | .21 | .11 | .08 | .16 | -.05 | -.02 |
| | 3 Years | .29† | .36* | .21 | .05 | .16 | .08 | .14 | .23† | .12 |
| | 5 Years | .08 | -.12 | -.06 | .12 | .21 | .18 | .10 | .00 | .03 |
| Child Negativity/ Hostility | 2 years | .00 | .07 | -.19 | -.22 | -.21 | -.08 | -.09 | -.06 | -.16 |
| | 3 Years | -.06 | -.14 | -.10 | .38* | .22 | .39* | .04 | -.03 | .06 |
| | 5 Years | -.07 | .19 | .32* | -.15 | -.14 | -.13 | -.12 | -.01 | .06 |
| Maternal Sensitivity/ Support | 2 years | .22 | -.15 | .06 | .20 | .04 | -.05 | .23† | -.01 | .06 |
| | 3 Years | .29† | .41* | .28† | -.05 | -.34† | -.20 | .13 | .13 | .10 |
| | 5 Years | .10 | .02 | .04 | -.04 | -.13 | -.10 | .08 | .00 | .00 |
| Maternal Intrusiveness/ Structuring | 2 years | -.14 | -.03 | -.10 | -.17 | -.03 | -.03 | -.18 | -.08 | -.10 |
| | 3 Years | -.01 | -.22 | -.05 | .19 | .10 | -.11 | .03 | -.11 | -.08 |
| | 5 Years | -.19 | -.18 | -.17 | .27† | .22 | .19 | -.06 | -.05 | -.02 |
| Dyadic Mutuality | 2 years | .27 | -.11 | -.02 | .21 | .11 | .02 | .24* | -.01 | .01 |

†$p < .10$ *$p < .05$

Table 26

*Correlations Between Parent-Child Interactions and Aspects of GCP at Age 5*

| | | Girls | | | Boys | | | Overall | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | SA | MR-RB | MR-INJ | SA | MR-RB | MR-INJ | SA | MR-RB | MR-INJ |
| Child Engagement/ Involvement | 2 years | .15 | -.07 | .14 | .47** | .15 | .00 | .34** | .05 | .07 |
| | 3 Years | .10 | .19 | .12 | .24 | .09 | -.21 | .22† | .07 | -.06 |
| | 5 Years | .03 | -.04 | .09 | .24 | .03 | -.01 | .11 | .01 | .08 |
| Child Negativity/ Hostility | 2 years | -.16 | .08 | -.04 | -.06 | -.11 | -.02 | -.09 | -.05 | -.06 |
| | 3 Years | -.08 | -.08 | -.15 | -.21 | .08 | .23 | -.12 | -.03 | -.05 |
| | 5 Years | .14 | .11 | -.09 | -.20 | .07 | .21 | -.05 | .05 | -.01 |
| Maternal Sensitivity/ Support | 2 years | -.02 | -.09 | .26 | .38* | .07 | -.04 | .19 | .04 | .17 |
| | 3 Years | .36* | .09 | .18 | .14 | .18 | -.04 | .29* | .07 | .05 |
| | 5 Years | -.08 | .03 | .17 | .26† | .15 | .03 | .07 | .11 | .14 |
| Maternal Intrusiveness/ Structuring | 24 Mo. | .11 | .11 | -.12 | -.06 | -.14 | .00 | .04 | -.06 | -.12 |
| | 3 Years | -.12 | -.16 | .02 | -.17 | .07 | .26 | -.13 | -.06 | .08 |
| | 5 Years | .13 | .01 | -.06 | -.22 | -.01 | -.10 | -.06 | -.03 | -.12 |
| Dyadic Mutuality | 2 years | .11 | -.04 | .28† | .43* | .16 | -.04 | .28* | .08 | .16 |

†$p < .10$ *$p < .05$ **$p < .01$

Table 27

*Correlations Between Parent-Child Interactions and the Number of Characteristics of G/T at Age 7*

| | | Girls | | | Boys | | | Overall | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Secure | Avoidant | Resistant | Secure | Avoidant | Resistant | Secure | Avoidant | Resistant |
| Child Engagement/ Involvement | 2 years | .07 | .04 | .29† | .03 | .05 | -.02 | .05 | .04 | .16 |
| | 3 Years | .37* | .27† | .23 | -.09 | -.02 | .15 | .12 | .11 | .16 |
| | 5 Years | -.01 | .19 | .18 | .21 | -.09 | .02 | .08 | .11 | .14 |
| | 7 Years | .02 | .06 | .10 | .01 | .14 | .08 | .02 | .09 | .10 |
| Child Negativity/ Hostility | 2 years | -.29† | -.41* | -.29† | .17 | .47* | .30 | -.13 | -.10 | -.08 |
| | 3 Years | -.01 | .07 | -.06 | .24 | .02 | -.01 | .04 | .02 | -.06 |
| | 5 Years | -.06 | .05 | -.07 | -.28 | -.27 | -.27 | -.20† | -.13 | -.18 |
| Maternal Sensitivity/ Support | 2 years | .20 | .05 | .19 | -.35† | -.25 | -.15 | .04 | -.01 | .08 |
| | 3 Years | -.14 | -.14 | .08 | .00 | -.02 | .00 | -.12 | -.11 | .03 |
| | 5 Years | .22 | -.08 | -.07 | -.08 | -.17 | -.01 | .14 | -.09 | -.03 |
| | 7 Years | -.15 | -.27† | -.02 | .32 | .03 | .09 | .05 | -.12 | .06 |
| Maternal Intrusiveness/ Structuring | 2 years | -.40* | -.17 | -.32† | .17 | .31† | .34† | -.21† | -.03 | -.08 |
| | 3 Years | -.01 | .02 | -.17 | .05 | .16 | .05 | -.02 | .06 | -.08 |
| | 5 Years | -.20 | -.13 | -.24 | -.26 | -.03 | .08 | -.23* | -.10 | -.11 |
| | 7 Years | -.01 | .44** | .37* | .29 | -.10 | .02 | .12 | .29* | .28* |
| Dyadic Mutuality | 2 years | .29† | .10 | .29† | -.22 | -.17 | -.13 | .10 | .01 | .13 |

†$p < .10$ *$p < .05$ **$p < .01$

Table 28

*Correlations Between Parent-Child Interactions Aspects of GCP at Age 7*

| | | Girls | | | Boys | | | Overall | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | SA | MR-RB | MR-INJ | SA | MR-RB | MR-INJ | SA | MR-RB | MR-INJ |
| Child Engagement/ Involvement | 2 years | -.15 | .28† | .06 | -.01 | .16 | -.04 | -.07 | .20 | .01 |
| | 3 Years | .47** | .23 | .26† | .07 | .07 | .15 | .25* | .11 | .22† |
| | 5 Years | .04 | .12 | .07 | -.07 | .25 | .46** | -.01 | .18 | .22* |
| | 7 Years | -.20 | .27† | -.32* | .26 | .23 | .44* | -.02 | .20† | -.05 |
| Child Negativity/ Hostility | 2 years | -.06 | -.27 | .17 | -.15 | .06 | .23 | -.10 | -.13 | .18 |
| | 3 Years | -.03 | -.04 | -.24 | -.13 | .27 | .15 | -.09 | .09 | -.08 |
| | 5 Years | -.04 | -.01 | .04 | .02 | -.36* | -.14 | .00 | -.24* | -.06 |
| Maternal Sensitivity/ Support | 2 years | .07 | .15 | .07 | .15 | -.09 | .02 | .09 | .09 | .07 |
| | 3 Years | -.07 | -.05 | .12 | .10 | .15 | .10 | .01 | .02 | .11 |
| | 5 Years | -.17 | .07 | .10 | .01 | -.12 | .14 | -.08 | .00 | .12 |
| | 7 Years | -.45** | .14 | -.20 | .04 | .47* | .39† | -.28* | .32* | .05 |
| Maternal Intrusiveness/ Structuring | 2 years | -.18 | -.35* | .17 | .06 | .16 | .12 | -.04 | -.13 | .12 |
| | 3 Years | .10 | -.04 | -.08 | .01 | .12 | .08 | .04 | .03 | .00 |
| | 5 Years | -.12 | .06 | .11 | .34† | -.09 | -.28 | .14 | -.03 | -.08 |
| | 7 Years | .00 | .07 | -.04 | .15 | .15 | .40† | .03 | .15 | .15 |
| Dyadic Mutuality | 2 years | .05 | .25 | .14 | .03 | .02 | -.04 | .03 | .15 | .07 |

†$p < .10$ *$p < .05$ **$p < .01$

Analyses by gender revealed a pattern between spanking at age 5 and representations of G/T for girls but not boys (Table 21). Specifically, girls that were spanked more often represented more secure and resistant characteristics of G/T ($z = 2.89$, $p = 0.004$ and $z = 2.30$, $p = 0.021$). Associations did not differ by gender at age 7.

***Parent-child interactions.*** A pattern of association emerged between dyadic mutuality at 2 years and GCP at age 5 (Tables 25 and 26). Specifically, children who shared more mutuality with their mothers represented a greater number of secure characteristics of G/T and characters that self-asserted at higher levels. At age 7, a pattern of associations emerged between maternal structuring at age 7 and G/T (Table 27). Children of mothers who structured play at higher levels represented more characteristics of avoidant and resistant G/T. A pattern between maternal sensitivity at age 7 and representations of MR-RB and SA also was found (Table 28). Children of mothers rated as more sensitive represented child characters self-asserting at lower levels and mothers providing greater limits.

The only consistent pattern of association based on gender at age 5 was between maternal supportiveness at age 3 and insecure characteristics of G/T. Girls that represented more aspects of avoidant and resistant G/T had mothers who were rated as more supportive, but these relationships were reversed for boys ($z = 3.05$, $p = 0.002$ and $z = 1.95$, $p = 0.051$, respectively). At age 7, for girls, maternal intrusiveness at 2 years was related to fewer secure and resistant characteristics of G/T; these associations were statistically different for boys ($z = -2.24$, $p = 0.025$ and $z = -2.64$, $p = 0.008$, respectively).

**Regression analyses.** When there was a statistically significant correlation between a developmental or relational factor (i.e., the predictor) and at least two aspects of GCP, MANCOVAs were conducted. The specific aspects of GCP were treated as the dependent

variables, the predictor was treated as the independent variable, and gender was treated as a covariate. In addition, an interaction term between the independent variable and gender was entered into the models. Finally, given the significant impact of language on children's representations of G/T, these skills were accounted for in analyses. Specifically, in all models except those that included language abilities as independent variables, children's receptive vocabulary skills at age 5 were entered as another covariate. Table 29 provides a list of the specific analyses completed.

***Language abilities.*** Results of a MANCOVA indicated that children's language abilities at 2 years were not a significant predictor of SA or MR-RB at age 5. Further, results indicated there was not a significant effect of gender or a gender by language interaction in either model.

The main effect of receptive vocabulary at age 3 on SA and MR-INJ at age 5 was significant ($F(2,60) = 4.75$, $p = 0.012$). Specifically, receptive vocabulary was a significant predictor of MR-INJ ($F(1,61) = 7.83$, $p = 0.007$, B = 0.02, $\eta_p^2 = 0.11$). After accounting for the effect of gender and a gender by vocabulary interaction, children with higher vocabulary skills represented mothers who provided a higher level of help in response to injury. There was not a significant main effect of gender or a gender by vocabulary interaction.

At age 7, vocabulary at age 5 was a significant predictor of G/T ($F(3,79) = 4.40$, $p = 0.006$). Specifically, vocabulary predicted representations of secure ($F(1,81) = 8.66$, $p = 0.004$, B = 0.035, $\eta_p^2 = 0.10$) and resistant ($F(1,81) = 6.61$, $p = 0.012$, B = 0.01, $\eta_p^2 = 0.08$) G/T. After accounting for the non-significant effects of gender and a gender by vocabulary interaction, higher vocabulary skills were associated with more secure and resistant characteristics of G/T. Vocabulary did not impact representations of avoidant G/T.

Table 29
*ANCOVA Models Tested*

| Model | DV | Age | IV | Covariate(s) | Interaction |
|---|---|---|---|---|---|
| 1 | SA and MR-RB | Age 5 | 24 mo. language | Gender | Language x Gender |
| 2 | SA and MR-INJ | Age 5 | Age 3 vocabulary | Gender | Vocabulary x Gender |
| 3 | Secure, Avoidant, and Resistant G/T | Age 7 | Age 5 vocabulary | Gender | Vocabulary x Gender |
| 4 | SA and MR-RB | Age 7 | Age 5 emotion regulation | Gender; Age 5 vocabulary | Emotion Regulation x Gender |
| 5 | SA and MR-INJ | Age 7 | Age 7 emotion regulation | Gender; Age 5 vocabulary | Emotion Regulation x Gender |
| 6 | SA, MR-RB, and MR-INJ | Age 7 | Age 5 behavioral and emotional difficulties | Gender; Age 5 vocabulary | Difficulties x Gender |
| 7 | Secure and Avoidant G/T and SA | Age 5 | Age 5 spanking | Gender; Age 5 vocabulary | Spanking x Gender |
| 8 | Avoidant and Resistant G/T | Age 7 | Age 7 spanking | Gender; Age 5 vocabulary | Spanking x Gender |
| 9 | Secure G/T and SA | Age 5 | 24 mo. dyadic mutuality | Gender; Age 5 vocabulary | Dyadic mutuality x Gender |
| 10 | Avoidant and Resistant G/T | Age 5 | Age 3 maternal supportiveness | Gender; Age 5 vocabulary | Maternal supportiveness x Gender |
| 11 | Avoidant and Resistant G/T | Age 7 | Age 7 maternal structuring | Gender; Age 5 vocabulary | Maternal structuring x Gender |
| 12 | SA and MR-RB | Age 7 | Age 7 maternal sensitivity | Gender; Age 5 vocabulary | Maternal sensitivity x Gender |
| 13 | Secure and Resistant G/T | Age 7 | 24 mo. maternal intrusiveness | Gender; Age 5 vocabulary | Maternal intrusiveness x Gender |

*Note.* DV= Dependent Variables; IV= Independent Variable

***Self-regulation.*** MANCOVA results indicated that there was not a significant effect of emotion regulation at age 5 on SA or MR-RB at age 7. Children's vocabulary scores at age 5

also did not significantly predict SA or MR-RB. However, there was a significant effect of gender ($F(2,78) = 5.03$, $p = 0.009$) and a gender by emotion regulation interaction ($F(2,78) = 4.84$, $p = 0.010$) on SA (B = 2.68, $\eta_p^2 = 0.07$ and B = -0.03, $\eta_p^2 = 0.07$, respectively) and MR-RB (B = -.3.47, $\eta_p^2 = 0.06$ and B = 0.04, $\eta_p^2 = 0.06$, respectively). Boys' greater ability to regulate their emotions significantly predicted representations of child characters that self-asserted at lower levels and mothers who provided greater limits.

Results of the MANCOVA indicated that emotion regulation at age 7 did not significantly predict SA or MR-INJ at age 7. There also was non-significant effect of age 5 vocabulary, gender, or a gender by emotion regulation interaction on SA or MR-INJ.

***Behavior problems.*** The main effect of emotional and behavioral difficulties at age 5 on SA, MR-RB, and MR-INJ at age 7 was non-significant. There also was not a main effect of age 5 vocabulary or gender. However, there was a significant gender by emotional and behavioral difficulties at age 5 interaction ($F(3,75) = 3.27$, $p = 0.026$). Specifically, this interaction term predicted SA ($F(1,77) = 6.18$, $p = 0.015$, B = 0.02, $\eta_p^2 = 0.07$) and MR-RB ($F(1,77) = 4.42$, $p = 0.039$, B = -0.03, $\eta_p^2 = 0.05$). Boys with greater difficulties represented children that self-asserted at higher levels and mothers who provided fewer limits.

***Parent discipline behaviors.*** MANCOVA results indicated a significant main effect of spanking at age 5 on G/T and SA at age 5 ($F(3,79) = 4.30$, $p = 0.007$). Specifically, spanking predicted representations of secure ($F(1,81) = 12.23$, $p = 0.001$, B = 0.26, $\eta_p^2 = 0.13$) and resistant ($F(1,81) = 4.53$, $p = 0.036$, B = 0.06, $\eta_p^2 = 0.05$) characteristics of G/T. However, there was a significant interaction between gender and the frequency of spanking at age 5 ($F(3,79) = 3.75$, $p = 0.014$), predicting secure ($F(1,81) = 6.63$, $p = 0.012$, B = -0.34, $\eta_p^2 = 0.08$) and resistant ($F(1,81) = 4.00$, $p = 0.049$, B = -0.10, $\eta_p^2 = 0.05$) characteristics of G/T. For girls, a greater

frequency of spanking was associated with more characteristics of G/T. Children's vocabulary at age 5 was not a significant predictor in the models. There were no significant predictors of SA.

Mothers' report of spanking at age 7 did not significantly predict children's representations of insecure G/T. There also was no main effect of vocabulary at age 5 or gender or a gender by spanking interaction on avoidant and resistant G/T.

***Parent-child interactions.*** When vocabulary and dyadic mutuality were included in regression, there was no main effect of dyadic mutuality at 2 years nor a gender or gender by dyadic mutuality interaction on representations of secure G/T and SA at age 5. However, children's vocabulary at age 5 was a significant predictor ($F(2,62) = 4.12$, $p = 0.021$). Specifically, vocabulary predicted representations of SA ($F(1,63) = 8.31$, $p = 0.005$, B = 0.01, $\eta_p^2 = 0.12$). Children with greater receptive vocabulary scores at age 5 represented child characters that self asserted at higher levels.

While there was a main effect of maternal support at age 3 on representations of insecure G/T at age 5 ($F(2,60) = 4.29$, $p = 0.018$), it was qualified by a significant gender by maternal support at age 3 interaction ($F(2,60) = 4.32$, $p = 0.018$), specifically predicting avoidant G/T. ($F(1,61) = 8.79$, $p = 0.004$, B = -0.27, $\eta_p^2 = 0.13$). Girls who experienced greater maternal support at age 3 represented more avoidant characteristics of G/T at age 5. There were no significant predictors of resistant G/T.

MANCOVA results revealed a statistically significant effect of maternal structuring at age 7 on insecure G/T at age 7 ($F(2,51) = 4.70$, $p = 0.013$). Specifically, greater structuring predicted more avoidant ($F(1,52) = 9.38$, $p = 0.003$, B = 0.27, $\eta_p^2 = 0.15$) and resistant ($F(1,52) = 4.51$, $p = 0.038$, B = 0.12, $\eta_p^2 = 0.08$) G/T. There was not a vocabulary effect at age 5, gender, or gender by structuring interaction.

Main effects for maternal sensitivity at age 7 ($F(2,51) = 4.86$, $p = 0.012$) and gender ($F(2,51) = 5.12$, $p = 0.009$) on SA and MR-RB were found. Although there were main effects for maternal sensitivity ($F(1,52) = 9.90$, $p = 0.003$, B = -0.13, $\eta_p^2 = 0.16$) and gender on SA ($F(1,52) = 4.55$, $p = 0.038$, B = -0.96, $\eta_p^2 = 0.08$), there was a statistically significant maternal sensitivity by gender interaction ($F(2,51) = 4.27$, $p = 0.019$) that specifically predicted SA ($F(1,52) = 5.33$, $p = 0.025$, B = 0.16, $\eta_p^2 = 0.09$). Girls with mothers rated as more sensitive represented child characters that self-asserted at lower levels. Gender also predicted MR-RB ($F(1,52) = 5.22$, $p = 0.026$, B = -1.44, $\eta_p^2 = 0.09$), with girls in general representing mothers who provided fewer limits.. Vocabulary at age 5 did not significantly influence these representations.

A MANCOVA predicting G/T at age 7 indicated that there was not an effect of maternal intrusiveness at 2 years. Main effects for vocabulary at age 5 ($F(2,57) = 3.68$, $p = 0.031$), gender ($F(2,57) = 9.14$, $p = 0.000$), and a gender by maternal intrusiveness interaction ($F(2,57) = 4.64$, $p = 0.014$) did emerge, however. Specifically, vocabulary predicted secure G/T ($F(1,58)= 6.17$, $p = 0.016$, B = 0.03, $\eta_p^2 = 0.10$), gender predicted secure ($F(1,58) = 11.08$, $p = 0.002$, B = -1.98, $\eta_p^2 = 0.16$) and resistant ($F(1,58) = 8.26$, $p = 0.006$, B = -0.77, $\eta_p^2 = 0.13$) G/T, and the interaction predicted secure ($F(1,58) = 4.29$, $p = 0.043$, B = 0.57, $\eta_p^2 = 0.07$) and resistant ($F(1,58) = 5.54$, $p = 0.022$, B = 0.29, $\eta_p^2 = 0.09$) G/T. Children with greater receptive vocabulary at age 5 represented more characteristics of secure G/T at age 7. Further, girls with more intrusive mothers at 2 years specifically represented fewer characteristics of G/T at age 7.

# CHAPTER 5: DISCUSSION

The current study provided the unique opportunity to examine the emergence and development of children's representations of the aspects of GCP during common early childhood challenges. Children's representations of the dyadic process of negotiation, as they considered balancing child characters' need to assert their autonomy and mother characters' need to set limits and respond sensitively, had very rarely been empirically studied, especially in a sample younger than age 7. Furthermore, the current study addressed a gap in the literature by considering individual differences in the aspects of GCP in a low-income, predominately Black and biracial sample, considering children's representations at two ages and across multiple contexts.

The current findings compliment and add to those presented by Gini et al. (2007) by exploring characteristics of GCP in a younger and low-income population. Lending support to the development of the coding system, Gini et al. (2007) found three profiles of behavior associated with dyadic construction of an emotional narrative: mutual and balanced, overwhelming, and disengaged. These patterns are consistent with the organization of G/T in the current study, representing aspects of GCP associated with secure, resistant, and avoidant attachment. Further, Gini et al. (2007) found that children who were classified as securely attached at age 1 engaged in negotiations with their mothers that were characterized by more mutuality and balanced affect. As these characteristics were used to describe secure characteristics of GCP in the current study, these results add another aspect of validity to the coding.

Given the scarcity of research assessing GCP, particularly children's representation of this dyadic process through the eyes of young children, an exploratory approach was taken in the

current study. Of particular interest was the developmental change in GCP from age 5 to age 7. Although there were no differences in children's representations of self-assertion at the two ages, children represented lower levels of maternal limit setting and response to injury needs at age 5 compared to age 7. However, when children did represent mothers providing more help at age 5, they represented more secure back-and-forth negotiations at age 7. These findings support the emergence of aspects of GCP at age 5. Yet, it wasn't until age 7 that a pattern emerged where children's representations included more balanced levels between child characters' self-asserting and mother characters' limit setting and helping behaviors. Theoretical formulations suggest this balance is a critical component of GCP (Kobak et al., 1993; Nucci et al., 1996), fostering the dyad's ability to negotiate around issues of goal attainment.

Additional evidence for continued development of the dyadic negotiation process through early childhood transitions included the fact that give and take negotiations went from being represented in only a quarter of children's stories at age 5 to three quarters of stories at age 7. Further, older children's narratives were more coherent and included more frequent mentalization. Interestingly, children's ability to consider multiple perspectives was associated with more secure G/T both within and across ages, but was unrelated to insecure G/T. These findings indicate that the developmental building blocks of secure GCP may be starting to surface at age 5, but it is not until children are older that a more coherent representation emerges.

There also were more differentiated patterns of association among the aspects of GCP at age 7 compared to age 5. At age 7, children that were able to represent back-and-forth exchanges, regardless of security, represented mothers who provided more limits. When these exchanges were characterized by security, mothers were represented as displaying more helping behaviors. However, when they were characterized by avoidant insecurity, children represented

child characters that self-asserted at higher levels. Such clear associations among the components of GCP that included negotiating a balance between self-assertion and parental containment as outlined within attachment theory (e.g., Gini et al., 2007; Kerns et al., 2001) were not observed at age 5.

Although Bowlby (1982) proposed the emergence of GCP behaviors around the age of four, the current findings lend support to the ideas of other researchers that an internal working model of GCP may not fully emerge until children are older (e.g., Waters et al., 1991). As this is the first study to examine empirically the development of working models of GCP in children younger than age 7, the findings indicate that children are better able to consider dual perspectives in relation to negotiating the resolution of challenges at age 7. This may be attributed to improved metacognitive abilities, which are known to improve between the ages of 5 and 7 (Eisbach, 2004; Sameroff & MacDonough, 1994). Children were able to represent that limitations on autonomy were needed during a negotiation through their representations of MR-RB, consistent with the literature (Fonagy & Allison, 2012; Fonagy & Target, 1997). They also were able to represent mothers who do not disengage after children's secure base behaviors were challenged in an injury (Gini et al., 2007).

Consistent with findings indicating narrative coherence is associated with the ability to consider multiple perspectives (Fiese & Sameroff, 1999), a key component of GCP, greater levels of secure G/T were correlated with more coherent narratives at age 7. This aligned with findings from Moss et al. (2009) that children that were categorized as securely attached told more coherent stories. Further, narrative coherence was associated with representations of greater maternal limit setting (at both ages) and help when child characters were injured and lower levels of child self-assertion (at age 7) in the current study. The negotiation between these

behaviors that define GCP was most apparent in coherent stories, and did not emerge consistently until children were age 7. This may be associated with older children's greater ability to self-regulate as they navigated the emotional content of stories (Colle & Del Giudice, 2010). At younger ages, although they told coherent narratives, children may not have been able to successfully resolve the conflicts through mother-child negotiations without being overwhelmed by emotion.

These findings further add to the literature base on GCP, which has not considered either empirically or theoretically what impacts the emergence and development of representations of this process at a young age in a low-income, primarily Black and biracial sample. In a low-income sample, children's lower levels of language ability and self-regulation capabilities (e.g., Hart & Risley, 1995; Howse, Lange, Farran, & Boyles, 2003) may challenge the emergence of these behaviors and an associated internal working model of dyadic process of negotiation. Further, the current study found that at both age 5 and 7, children that represented secure characteristics of G/T also represented insecure characteristics, although insecure characteristics were infrequent overall in the sample. It is also possible that the current approach to measuring negotiation was not ideal, and looking at overall patterns of characterization may more accurately represent GCP.

Along with ideas drawn from attachment theory, the literature on child-rearing styles (Baumrind, 1971) further helps to illuminate significant influences on the emergence and development of GCP. Specifically, the importance of maternal characteristics was examined in three ways in this study: first, by examining children's representations of mothers in their stories; second, by examining earlier and concurrent observed behaviors of mothers with their children; third, by examining the association of maternal reports of disciplinary encounters with the child.

Within secure GCP, children experience both parental warmth and limit setting and are encouraged to assert themselves in developmentally and contextually appropriate ways (Brumariu & Kerns, 2008). The way children represented mothers in terms of positive, disciplinary, and negative characteristics was thus explored in relation to representations of GCP to examine this theoretical assumption (Gray & Steinberg, 1999).

An association emerged at age 5, with children who included more positive characteristics of mothers also representing them as setting more limits and providing more help in response to injury. When mothers displayed negative behavior, child characters were represented as being more self-assertive. Cross age associations indicated that children that portrayed mothers as demonstrating negative characteristics at age 5 represented more avoidant characteristics of G/T at age 7. Then, at age 7, differentiated associations between characteristics of mothers and G/T emerged. Secure G/T was associated with representations of mothers who were positive and disciplinary, consistent with ideas drawn from the parenting literature that advocate GCP is supported when parents remain sensitive but firm in their limit setting (Brumariu & Kerns, 2008; Hart et al., 2003). This is also consistent with results from Moss et al. (2009) where a relationship between secure attachment at age 7 and greater representations of discipline at age 9 was found. Importantly, in the current study, insecure G/T was associated with mothers who displayed harsh, rejecting, or ineffectual, as well as disciplinary, characteristics, suggesting an imbalance in autonomy granting and containment.

That secure and insecure representations of G/T were associated with the distinctive and predicted maternal representations is an important finding. Attachment theory supports the idea that securely attached children are able to recognize that disagreements will not disrupt their relationships (Allen, 2008), so they are willing to enter into negotiations as necessary

(Crokenberg & Litman, 1990). These negotiations involve mothers and child characters acknowledging each other's goals, recognizing limits on fulfilling all of their wants are necessary, and arriving at a mutually agreed upon solution, the essence of secure GCP. Children with more insecure attachments, however struggle to balance the aspects of GCP, where caregivers are often overly controlling and punitive (Smyke et al., 2010; Zeanah et al., 2011). Children's representations reflected these ideas, providing preliminary evidence that young children's internal working model of GCP is clearly developing by age 7.

The association between maternal characteristics and GCP was further explored through relational factors of interaction to determine their impact on the process of negotiation. Only one of the hypothesized associations between positive qualities of mother-child interactions and representations of higher levels of secure G/T and maternal help emerged; dyadic mutuality was correlated with secure G/T. Children in dyads that possessed the ability to share perspective, energy, and affect as early as 2 years represented the same qualities in their narration of mother-child negotiation at age 5. Higher levels of dyadic mutuality were also associated with greater levels of SA. The literature on GCP indicates that parents learn to respond to children's feelings with respect and weigh their need to be autonomous with meeting the children's needs through containment of behavior (Shields et al., 2001). It may be the case that children who experienced shared perspectives with caregivers at earlier ages represented child characters that did not need to inhibit their self-assertions. However, these findings need to be interpreted with caution because the effect of mutuality appeared to be mediated by language achievements at age 5.

Negative aspects of mother-child interaction also impacted representations of GCP. Children that had mothers who were observed to be more structuring and intrusive during play at age 7 represented more resistant qualities of G/T at age 7. These qualities included the child

having too little autonomy and distress that could not be quelled. These are some of the most interesting findings from this study because they are highly specific to insecure resistant attachment. In the larger attachment theory empirical literature few studies are able to show substantial prediction of resistant or avoidant attachment styles with this level of specificity.

Mothers' reported level of strictness was expected to impact representations of MR-RB but instead was associated with SA and G/T. Specifically, children that experienced a greater number of spankings at age 5 and 7, respectively, represented child characters that asserted at higher levels (age 5) and narratives that included more insecure characteristics of G/T (age 7). Children learn how to resolve disagreements based on their experiences with caregivers (Nelson et al., 2014) may help explain these findings with both negative aspects of interaction and reported strictness. When children experience an imbalance in autonomy granting and containment, children may develop an internal working model that is characterized by insecurity. Children with too much autonomy may expect parents to respond insensitively and be unable to compromise, whereas children with too little autonomy may expect parents to use threats and continue to assert themselves without willingness to resolve conflicts.

Although ethnic-racial differences did not emerge, it is possible that characteristics of the sample, being predominately Black or biracial, may have contributed to the lack of other significant associations between aspects of GCP and maternal characteristics of interaction. For instance, African American parents have been observed to be more intrusive and directive than European American parents (Ispa et al., 2004) and to use more physical discipline (Deater-Deckard, Dodge, Bates, & Pettit, 1996). However, the strictness that is often utilized is usually combined with warmth and reasoning (Ispa et al., 2004). Therefore, there may be differences in the parental containment in GCP across different cultural groups.

Goal-corrected partnerships involve dyads. Therefore, beyond maternal behavior, developmental characteristics of children were hypothesized to contribute to the representations of successful negotiations. Children who had greater language capabilities were expected to represent more developed aspects of GCP, consistent with the ability to engage in discussions about their thoughts and feelings and negotiate agreed upon goals (Boris et al., 1999). However, national EHSREP data indicated that 52 percent of children scored more than one standard deviation below the standardized mean on the PPVT at age 3, indicating low language abilities. This may help explain why few patterns in the data emerged; only children's language and vocabulary skills at ages 2 and 3 years were associated with greater self-assertion and maternal helping representations at age 5 and children's vocabulary skills at age 5 were associated with their representation of G/T at age 7. It may be that low-income children who often display delays in their verbal abilities (Hart & Risley, 1995) may continue to need support from adults in learning how to negotiate during situations of conflict for longer periods of time than more verbal children. This may limit their capacity to verbally represent qualities of GCP.

Gini et al. (2007) also found some associations between children's concurrent language skills and their ability to engage in a mutual-balanced affective negotiation with their mothers. Specifically, in a sample of Israeli children who were approximately 7.5 years old, children with higher language abilities were more likely to engage in negotiations characterized by mutuality as opposed to disengagement. However, they were no more or less likely to engage in negotiations characterized by maternal intrusiveness. The current findings indicating children with higher vocabulary skills at age 5 represented more aspects of G/T at age 7, both secure and insecure, may indicate that language capabilities are important for being able to mentalize about the negotiation process in general (Hill et al., 2003).

Additionally, there was some evidence to indicate that children's self-regulation abilities also impacted representations of GCP. Children that possessed greater emotion regulation at age 7 represented child characters that self-asserted at lower levels and mothers who provided more help with injuries at age 7. These findings support research that identifies children's ability to control their emotions contributes positively to being able to mentalize about others' thoughts and feelings (Fonagy & Allison, 2012). Although self-regulation was not associated with secure G/T as anticipated, SA and MR-INJ are important components of the process of being able to effectively negotiate. These relationships, therefore, support the impact of regulation on emerging GCP.

The current study also found that gender impacted the emergence and development of GCP in unique ways. Girls engaged with the material more frequently and represented more aspects of GCP, particularly at age 5. They represented mothers that provided more limits in response to rule breaking and more help when child characters were injured, suggesting sensitive containment. Similarly, girls at ages 5 and 7 engaged in more G/T with mothers and it was more often characterized as secure compared to boys. The low-income, mostly minority girls in the current study seemed to be able to more successfully represent characters considering each other's goals and communicating about them, indicating high levels of intentionality (Hill et al., 2007).

This was further supported by girls' greater story coherence and mentalization. Girls that had the metacognitive abilities to coherently represent one character getting into the mind of another or to represent a child narrator within the narrative frame represented G/T that was characteristic of a secure GCP. These girls represented the perspectives of both child characters and mothers simultaneously. These findings indicate that the representation of these secure

partnerships and children's ability to represent the perspectives of two people at once may be closely related for girls specifically, starting early and continuing as they get older. Research indicating girls may be socialized toward greater interpersonal relatedness starting in infancy and toddlerhood may help explain these findings (Robinson, Little, & Biringen, 1993). Studied at 18 and 24 months, girls shared affective states with mothers more often than boys, contributing to greater dyadic mutuality, especially when mothers were rated as more positive. This open emotional communication is a critical aspect of GCP.

These associations have been found in other research involving older children. Specifically, Moss et al. (2009) found girls told more coherent stories and represented higher levels of parental discipline at age 9. The current findings indicate these associations are apparent at earlier ages, where girls told more coherent stories and represented greater levels of maternal limit setting at age 5, although gender differences diminished at age 7.

A distinctive relationship also emerged between insecure characteristics of G/T and SA for girls. At age 7, insecure representations were associated with self-asserting at higher levels. Girls' struggle to assert their autonomy in developmentally and context appropriate ways was reflected in insecure features of negotiation, including an inability to take each other's perspectives, adjust to mutually understood goals, and cooperate to arrive at a productive resolution. These high levels of SA may have been particularly influential on insecure representations of G/T for girls based on research supporting their greater propensity to display relatedness compared to boys (e.g., Robinson et al., 1993). Girls who represented child characters who showed more self-directedness, therefore, may not have had the internal working model of engaging in dyadic mutuality surrounding goal attainment. Boys' internal working models of self-assertion may not have been disrupted in the same way.

Factors predicting children's representations of GCP also differed by gender. Given research indicating that sensitive responsiveness is associated with a child's greater willingness to negotiate (Gini et al., 2007), it was expected that maternal sensitivity would be associated with secure characteristics of G/T and maternal intrusiveness would be associated with insecure characteristics of G/T. However, for girls, maternal supportiveness at age 3 was associated with a greater number of avoidant and resistant characteristics at age 5. At age 7, however, earlier and concurrent maternal intrusiveness were associated with less secure and more insecure G/T. These findings may imply that positive maternal qualities of interaction may support girls' ability to imagine a back-and-forth exchange with caregivers around goal attainment at age 5, although it does not always contain the most optimal qualities of negotiation as these representations are just beginning to emerge. By age 7, there seemed to be a clearer differentiation of girls' negotiation capabilities in relation to maternal interactions. These associations may thus serve as a preliminary indication that positive qualities of mother-child relationships do impact representations of GCP for girls.

The parenting literature also supports that children who receive a high level of maternal strictness that is not balanced with warmth may struggle with negotiations inherent in GCP because they have limited opportunities for self-assertion (Brumariu & Kerns, 2008). In the current study, strictness was examined through mothers' reported discipline behaviors, with results indicating that girls who received stricter discipline at age 5 represented more secure and resistant characteristics of G/T at age 5. By age 7, spanking was only associated with insecure characteristics of G/T. Although it is unknown whether strictness was balanced with warmth in these dyads, these results further indicate that a clear and consistent pattern of association between maternal characteristics of interaction and GCP at age 5 is not yet apparent. Further,

given the majority of the sample was Black or biracial, strictness may impact children's internal working models about asserting their autonomy differently (Crokenberg & Litman, 1990; Ispa et al., 2013). Specifically, despite high levels of strictness, children may have continued to display self-directedness in these samples, unlike primarily White samples where strictness limits autonomy (Ispa et al., 2004).

Aspects of GCP were less well developed for boys. Patterns among the aspects of GCP rarely emerged, and boys infrequently represented secure G/T. Boys who represented child characters self-asserting at higher levels at age 5, however, did include mentalization in fewer stories at age 7. Further, boys who represented high levels of self-assertion at age 7 told less coherent stories. It is possible that boys' high level of arousal during these self-assertive episodes prevented them from telling a coherent story. Given the associations between mentalization and narrative coherence and the ability to engage in secure back-and-forth negotiations, these findings may indicate that boys' internal working model of GCP may emerge later than girls'. It also is possible that the demographics of the sample, being low-income and primarily Black and biracial, may have influenced boys' representations of GCP in different ways than girls'. Specifically, parents' higher directedness with boys (Ispa et al., 2013) may negatively impact the boys' ability to engage in back-and-forth engagements.

Further, whereas associations were found between GCP and maternal characteristics for girls, and no associations were found with developmental assets or challenges, the opposite was true for boys. Boys that possessed greater emotion regulation abilities at age 5 represented mothers who provided greater limits and child characters that self-asserted at lower levels at age 7. Self-regulation supports boys' ability to represent a balance between autonomy and parental

containment, consistent with research supporting the association between self-regulation and GCP (Colle & Del Giudice, 2010; Moss et al., 2014).

However, boys that had more reported emotional and behavioral difficulties at age 5 represented lower levels of limit setting and child characters who self-asserted at higher levels at age 7. This finding was inconsistent with results from Gini et al. (2007) and Moss et al. (2009). It was expected, as supported by their previous research, that a greater number of behavioral difficulties would be associated with representations of greater limit setting. Although it is not possible to examine in the current study, it may have been the case that this reflected low-income boys' lived experience with mothers who did not respond to their misbehavior through setting limits, influencing their representations. This postulation is consistent with other research involving young, low-income children. Solomonica-Levi and colleagues (2001) found that preschool aged children with reported behavior problems represented fewer instances of being disciplined in their narratives. This matched findings that their mothers did in fact inconsistently discipline them.

Gini et al. (2007) explored these relationships without consideration of gender differences and also during real-life negotiations. Therefore, the results may have predictively differed. Further, although Moss et al. (2009) also found behavior problems were associated with narrative representations including a high level of maternal punishment, both of these studies focused on children of White and middle-class background. The associations should not be assumed to be the same in the current low-income sample, comprised primarily of Black, White, and biracial children. Further exploration of these associations across income groups is thus warranted.

These results indicate that girls' representations of GCP are more closely tied to aspects of interaction, whereas boys' representations are more closely tied to their developmental assets and challenges. Additional examination of these associations will be necessary in order to form more definitive conclusions about what predicts girls' and boys' representations of GCP beyond speculation.

It is important to note, however, that in many cases gender differences did not emerge in the associations among aspects of GCP and other narrative dimensions, particularly across ages. For example, in most cases, the intercorrelation of aspects did not differ by gender. The cross-age associations between narrative coherence and GCP also did not differ for boys and girls. These findings indicate significant construct reliability. The measurement of children's representations of GCP appeared to be consistent for boys and girls adding further evidence for the validity of the coding scheme.

**Implications**

An important implication of this work is that the findings can provide interventionists with a greater understanding about the connection among children's representations of GCP, their attachment relationships, and their socioemotional functioning. This, in turn, can inform their work with parents and young children. Specifically, disagreements over goals are significant events in the evolution of the attachment relationship (Kobak, & Duemmler, 1994). Therefore, young children's representations about mothers' availability and willingness to negotiate during conflicts may serve as a way to assess their internal working model about their attachment relationship with their own mother. Based on research indicating greater insecurity of attachment may lead to difficulties such as problem behaviors (Fearson, Bakermans-Kranenburg, Van IJzendoorn, Lapsley, & Roisman, 2010), children that represented imbalanced

GCP may benefit from interventions aimed at improving the parent-child attachment relationship.

One such intervention protocol that has shown promise in improving mothers sensitivity and responsiveness to children's cues, a critical aspect of developing GCP, is Circle of Security (Hoffman, Marvin, Cooper, & Powell, 2006). This dyadic intervention is aimed at vulnerable families, consistent with the demographics of the current sample. Through parent education and psychotherapy, results indicate parents improve their caregiving behavior. Children from toddlerhood to school age move from attachments with insecure qualities to those with secure qualities based on these improvements in sensitive responsiveness. With more adaptive strategies for dealing with conflictual scenarios, dyadic interactions improve, goal-corrected partnerships are fostered, attachment quality improves, and socioemotional difficulties may be avoided.

The results of this study also have important implications for the necessity to foster children's skill development in the areas of theory of mind, language, and self-regulation. The findings suggest that GCP may be limited by children's inability to think about parents' goals and desires, communicate effectively, and regulate themselves. Parenting interventions that focus on helping parents include more mental state language in their conversations with children and exposing them to multiple perspectives on a topic have been shown to improve children's ability to mentalize (Harris, de Rosnay, & Pons, 2005). Further, the improvement in parents' mentalization about children's behavior, thoughts, and feelings helps them to scaffold children's ability to mentalize as they consider parents' point of view (Marvin, Cooper, Hoffman, & Powell, 2002).

Interventions that focus on fostering children's language and executive functioning skills may also significantly impact the emergence and development of representations of GCP. Particularly in low-income populations, home-visiting programs has been shown to improve children's communication and self-regulation skills (Love et al., 2005; Olds, Robinson, et al., 2004). Home visiting has also been shown to reduce displays of dysregulated aggression and story incoherence in low-income Black children's narrative responses to story stems (Olds, Kitzman, et al., 2004). Research has indicated that boys' executive functioning skills may also be significantly improved through involvement in physical activities such as martial arts (Diamond & Lee, 2011). Even classroom curricula, such as Promoting Alternative Thinking Strategies (Domitrovich, Cortes, & Greenberg, 2007) and Tools of the Mind (Bodrova & Leong, 2006), show promise in fostering children's emotional regulation and ability to meaningfully communicate, key components of GCP. Through these efforts, it may be possible for children to gain skills necessary to represent the critical qualities of negotiation around goal conflicts, supporting the enactment of these behaviors in their relationships.

**Limitations**

It is important to acknowledge the study's limitations. Specifically, this was a secondary data analysis, and therefore the data were not designed for the current purposes. For instance, there were limited measures of children's developmental skills. Both the characteristics of mothers and children were also only assessed in limited contexts. Additionally, based on the theoretical literature, children's attachment relationship and parents' child rearing styles play an important part in the development of GCP. However, these were not assessed optimally and available for the current study. Despite these limitations, this study did help illuminate some areas significantly related to GCP. Future work will need to explore these and additional factors

to continue to illuminate their contribution to the emergence and development of aspects of GCP to further inform the literature.

It was also a limitation that the current study included a small sample, specifically a longitudinal sample of only 75 children, which limited the analyses that could be completed. For some aspects of GCP and factors hypothesized to predict the representations of these partnerships, there was not a lot of variation amongst scores. With a larger sample, this lack of distribution may not have been an issue. The sample size further limited the discovery of anything except large effects.

In addition, the sample was identified as low-income and consisting primarily of Black and biracial children, which may limit the generalizability of the results to children from other income and ethnic-racial groups. However, the current findings contribute significantly to the literature on GCP given this is one of the first studies to examine GCP empirically through children's representations based on story beginnings. The current results should be treated as preliminary and future work should build on them by examining children's representations in other samples.

Another limitation was that children's representations were only collected at age 5 and age 7, and the current study only used children's representations of the mother-child relationship. More frequent assessment and the inclusion of fathers would offer further information about how these partnerships emerge and develop across time. This is an aim for future investigations.

The current study relied on assessing children's reactions to hypothetical challenges. It must be acknowledged that research indicates children respond to hypothetical situations involving conflict differently than to real life conflict situations (Laursen et al., 2001). We should assume that children's response to story stem narratives does not always accurately

reflect their own behavioral style of responding to challenging situations. However, given the nature of story stem narratives, in which children are asked to demonstrate what a family of dolls would do in the situation, children's responses provided an effective way of measuring children's incorporation of GCP in their narratives. In fact, children may not have personally experienced some of the challenges presented in the current study. Therefore, the current study helped to illuminate children's internal working model of these interactions. However, whether their representations are meaningfully associated with their negotiation behavior was not explored in this study. A future aim will be to examine children's negotiation behaviors during play-based interactions with parents in relation to their working models of GCP.

**Conclusion**

The current study deepened the field's understanding of children's awareness and representations of mother-child relationships during early childhood from the perspective of low-income children. This work was particularly poised to address the emergence and development of GCP by assessing children's internal working model at two points in time of how both a child character and his or her mother negotiate their actions and feelings to resolve an emotional or interpersonal challenge. Results indicated that older children and girls more frequently represented the negotiation process. As GCP are shared between caregivers and children, these children's superior mentalization abilities at age 7 allowed them to demonstrate their knowledge of both perspectives simultaneously.

The current study also examined children's representations across multiple hypothetical contexts, including both injury and defiance scenarios. The results are informative because they help further explore how children view parental support and encouragement for their developing autonomy and willingness to negotiate around goal attainment. As children transition from the

home or preschool classroom into elementary school, their experiences with different social partners expand. Children begin to form GCP with teachers and peers (Ryan et al., 1997). How children represent opportunities to be autonomous and negotiate in the parent-child relationship can provide information about these aspects of GCP in other relationships. Based on their previous experiences with parents' reaction to children's self-assertions, children may come to expect others, including teachers and peers, to respond in similar ways. Research has suggested beyond social relationships with new roles and responsibilities (Sameroff & Haith, 1996), this may also impact children's wellbeing and social-emotional success (Berndt, 2004; Ryan & Deci, 2000).

In addition to addressing the limitations of this area of research, particularly children's representations of aspects of GCP during transitions within early childhood, the current study provides a deeper, yet preliminary, understanding of relational and developmental factors associated with characteristics of GCP. Dyadic mutuality, maternal strictness and sensitivity, children's receptive vocabulary, emotion regulation, and their reported behavioral problems help illuminate some of the influences on individual variation in these partnerships. This variation, in turn, may predict different emotional and behavioral responses to new social encounters. As children change contexts and begin to develop new relationships, children who possess greater abilities to engage in GCP with secure qualities may be advantaged. This is an important area for future work, but examining these and other predictors of GCP may help illuminate important areas for early intervention.

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## Appendix A

### Goal-Corrected Partnerships Coding Scheme

The current coding scheme draws from the attachment literature. For example, resistant narrative representations do not result in the quelling of distress, whereas avoidant narrative representations do not acknowledge the power of the relationship.

***Instructions:*** *Coders should read all descriptors before assigning a code for each variable. Coders will note the code level (e.g., 0, 1, 2) for each variable on the scoring sheet.*

- **Give and Take (G/T)** – Parent and child have a back-and-forth exchange in relation to the child's goal. The advanced form of this exchange includes an initiation (i.e., comment, request) from one member, which is responded to by the other through action, comment, or request. The back-and-forth exchange remains on the same topic or builds on the topic (i.e., "It is time to go to bed" "But I don't want to go to bed. Can I stay up 5 more minutes?").
  - Coder should tally the number indicators present in each column and sum them.

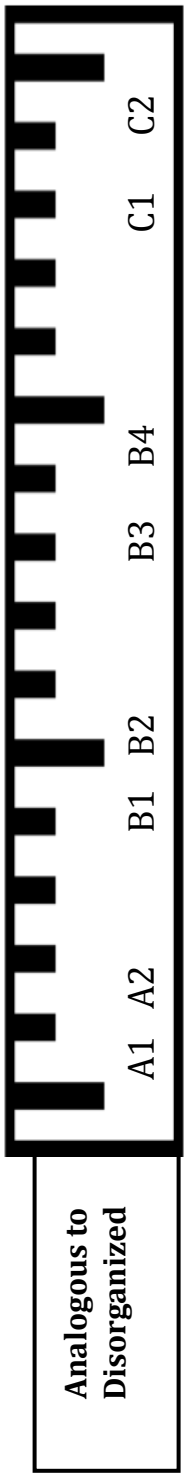
| | A: Avoidant Give and Take | B: Secure Give and Take | C: Resistant Give and Take |
|---|---|---|---|
| Responsiveness | Lack of positive, sensitive well-regulated responsiveness; response does not include sympathy | Mutual responsiveness that is positive, sensitive, well-regulated<br>• e.g., responds to child's self-assertion and parents' limits without demeaning the other | Responsiveness is inconsistently positive, sensitive, well-regulated; Inconsistent sympathy<br>• e.g., child OR parent may display sensitive responsiveness, not both |
| Roles | Unbalanced roles; child has too much autonomy<br>• e.g., child dominates; child is allowed to skip school to stay up and watch TV; child does not give adult opportunity to provide limits | Balanced give and take roles<br>• e.g., parent sets limits, child responds; child is given choices; both have an opportunity to respond; child does not necessarily follow limits, but they aren't overly strict or parent isn't critical | Unbalanced roles; child has too little autonomy<br>• e.g., parent criticizes, child is not given an opportunity to speak |
| Perspective Taking | Parent and child are unable to take each other's perspectives<br>• e.g., parent or child does not offer his/her perspective or listen to the other's perspective | Sophisticated perspective taking<br>• e.g., child weighs right vs. wrong, wants vs. parents' wants, intention vs. accident; both offer perspective and listen to each other | Inconsistency or inability in taking the other's perspective<br>• e.g., the fact that it is a school night is inconsistently emphasized; child struggles to take the perspective of the parent; child OR parent takes perspective, but not both |

| | | | |
|---|---|---|---|
| Communication | Communication is dominated by one partner; talk at one another or are not engaged<br>• e.g., child passively self-asserts; communication is primarily the parent providing limits | Clear, direct, balanced communication; interaction flows smoothly; both give and take<br>• e.g., dyad talks with one another | Communication is unclear, involves lying, deception, threats; Child's distress cannot be quelled; illogical conclusion<br>• e.g., child becomes more distressed and it escalates to a breaking point; child whines |
| Understanding Goals | No active adjustment; Differences are not worked through, but may disappear; no mutual understanding, cooperation, coordination, or co-construction<br>• e.g., passive agreement; persists in what he/she wants, but eventually one stops asserting | Adjustment to mutually understood goals; reciprocal cooperation, coordination, or co-construction; both partners give and take<br>• e.g., compromise, delay of gratification; acknowledgment of each other's goals; each person's goals are met or explained why they can't be met | Both assert themselves without willingness to work toward a resolution<br>• e.g., "You're not the boss of me! - Yes, I am!" I'm not going to bed!– Oh yes, you are."; endless cycle of asserting |
| Resolution | Resolved through incoherence (e.g., suddenly its all better); incoherent to positive ending; someone finally takes action to resolve; there is an abrupt stop and the parent finally takes control<br>• e.g., parent finally stops resisting and gives in; they all went to sleep; they all felt better<br>OR Unresolved after prompt (e.g., the child ends the story without resolving, cutting off further discussion)<br>• e.g., child says "and that's the end" or "I don't know" but not negative | A productive, mutually agreed upon resolution about what the child gets<br>• e.g., one character proposes a solution, the other actively agrees; explicit resolution; positive, without threats or conflict | Unclear resolution; incoherence to negative; inability to accept resolution of distress; agonizing; the story looks like its resolved but it's a sham<br>• e.g., negative ending, the child sneaks out of bed, resulting in further negative consequences after it was previously resolved<br>OR No clear ending (examiner ends because of inappropriateness or escalation)<br>• e.g., "And then mom's head gets smashed…", "This looks like a good time to end this story." |

*Note: It is possible to represent a negotiation through another (i.e., Mom is advocating on behalf of the child while talking to Dad; sibling talks about the interaction between Robert and Mom)*

❖ **Self-Assertion (SA)** – the child expresses his of views or desires and/or attempts to enact behavior to meet his goals

- Coder should note all occurrences of SA, but the final score is the highest level achieved.
- In this schema, children being reluctant to assert indicates resistance, whereas children asserting without their parents indicate avoidance.




0. No Self-Assertion Beyond Stem
   - ❖ Child does not assert beyond the story stem or attempt to self-assert (e.g., puts the candy back and does not attempt to get it again; child follows mother's directions to move away from the stove, does not ask or go get a Band-Aid himself, mom gives the child the candy, mom gets the Band-Aid).

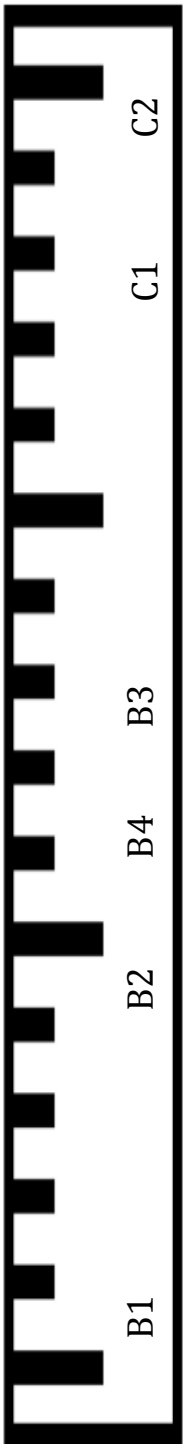
1. Self-Asserts with Parents
   - ❖ Child asks the parent if he can do something (e.g., asks to stay up late, asks to get the candy) or asks the parent for help (e.g., walks up to mom and shows her his hurt hand, child makes verbal statement saying they need help with hand; "I cut my finger!")
   - ❖ Verbal resistance directly toward parents (e.g., "No, I don't want to go to bed." "I want the candy" "I wanted to be a great cooker." "Rhonda didn't do it [go to bed] at all.")
   - ❖ Child explains what happened to parent, taking responsibility for action (e.g., "I accidentally took [the knife] the wrong way and cut myself." "I just made a mistake.")
   - ❖ Child accomplishes goal again with the parent (e.g., the parent and child cook together)

   Self-Asserts without Parents
   - ❖ Attempts to accomplish goal again, often replaying the original stem and attempts to meet his goal by himself (e.g., steals candy again, goes back to cooking, tells parents he will watch TV in his room; sneaks out of bed to watch more TV; child gets the Band-Aid himself, child buys the candy, child stays up)
   - ❖ Child explains what happened to self (e.g., whispers, "I just made a mistake.")

2. Dysregulated, Extreme Self-Assertion [NOTE: INDICATE WHETHER DYSREGULATION WAS INTERNALIZING OR EXTERNALIZING]
   - ❖ The child has age atypical power and calls the shots; child dominates adults, collapsing/destroying/removing their authority (e.g., tells the parents that they are going to buy the candy, "All of us should be going to bed;" tells the parents to move the TV to his room, sends the parents to their room, sends the parents home from the store and eats all the candy, "Put that back, Mom and Dad!", child runs away from the police)
   - ❖ The child exhibits extreme internalizing behavior, including self-blame or self-injury (e.g., The child hits self over the head with a pot after apologizing for transgression)
   - ❖ The child threatens or delivers verbal or physical assaults (e.g., the child kicked Mom when she tried to pick him up, "I'll stab you with this knife.")

❖ **Parental Response to Rule Breaking (PR-RB)–** the way parents respond to children's rule breaking during overreaching by setting limits to protect and restrict access.

- Coder should note all occurrences of PR-RB, but the final score is the lowest level achieved.
- In this schema parents becoming dysregulated in their limit setting indicates resistance, whereas parents not providing any limits indicates avoidance.

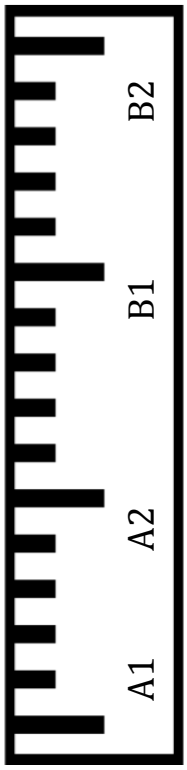



0. Dysregulated limit setting
   - ❖ Parent threatens the child, is verbally abusive, excessively cold or harsh, or physically removes the child (e.g., parents send the child to prison for stealing, child is kicked out of the house, Dad calls the police; parent threatens to cut Robert with the knife, "Get out of the kitchen you bad kid!")
   - ❖ Parent becomes physically abusive, hostile, shaming and blaming, or aggressive (e.g., parent kicks, hits, or stabs the child)

   Parent focuses on limit setting, not the child; well-regulated strictness
   - ❖ Parent sets boundaries without acknowledging the child's feelings or desires; Verbally re-states the boundary (e.g., "No, you can't." "Give me that candy." "Do it now before I get the belt." "Don't touch it again." "Don't get too close." "I'm giving it back to the SC." "You're not supposed to do that. Let's go home." "Don't do that again." "We told you that you could not have the candy.")
   - ❖ Through discipline (e.g., child is grounded or put in timeout; child is spanked, parent smacks the child, child is hit with a belt)
   - ❖ Parent blames and shames child ("What you did was bad." "You know you're not supposed to." "You know better than to do that.") along with a limit
   - ❖ Parent physically takes the knife away, puts the candy back on the counter

   Authoritative limit setting, focus is on the thoughts and feelings of another
   - ❖ Parent establishes authority as well as acknowledges child's desires and feelings and/or provides reasoning for why the goal cannot be met; parent may recognize it was an accident, mistake, or unintentional, but limits are provided (e.g., "I know you wanted to cook, but you can cut yourself when you use knives." "I know you want candy, but you already had some today." "I understand it is hard to remember not to touch things, but you have to try." "It is fun to stay up late, but you have to go to bed because you have school tomorrow." "I wish you could cook too, but you can't." "Go upstairs and I'll read you a story." "You have to listen to your mom." "It was only an accident, but you cannot play with knives again.")

1. Parent acknowledges transgression, but does not place limits on child; may question child about what happened, blame, or shame child but no behavior limit or behavior change is offered.
   - ❖ Transgression is acknowledged directly to child or indirectly through someone else (e.g., "You know you're not supposed to have more candy." "You're not supposed to use knives alone" "What did you do? You cut yourself with that knife!" "You know better." "You know you're not allowed." "What happened?", Mom tells the police officer




that child's burnt hand was from touching the stove when he wasn't supposed to)

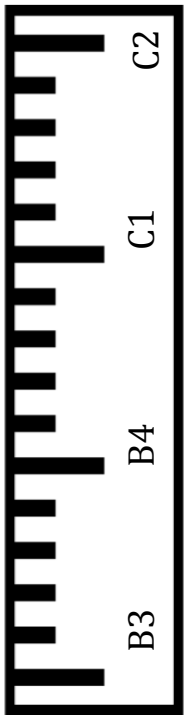
Inconsistent response to rule-breaking [NOTE: By choosing this, you will not mark other options]

- ❖ Parent switches back and forth between imposing a limit or restriction on the child, and giving in; parent may decide it was an accident, mistake, or unintentional (e.g., "Give me that candy!" [Mom gives the candy back, but it was only $2, so she gives the SC the money and the child gets the candy]; Mom put the candy away, but when store keeper says R. can have it, mom asks how much it would be, but then it's too expensive and the child does not get the candy and they go home)

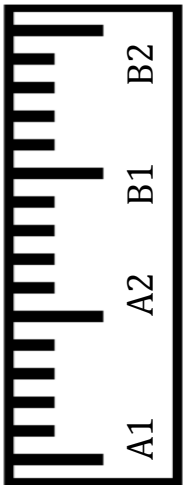
2. Parents do not acknowledge transgression and are not protective through limit setting, restriction, or containment

- ❖ Parents are not involved in the story beyond the stem (e.g., parent does not respond when the child doesn't move away from the TV; the parent does not say anything to the child after he burns or cuts himself; the parent does not interact with the child after the candy is stolen)
- ❖ Parents involved in the story, but do not acknowledge the transgression (e.g., parents do not place limits on children's access to the candy; the parent does not restrict the child's access to the TV; the parent does not call attention to the child not supposed to be using knives; the parent does not acknowledge the child did not follow the rule to stay away from the stove; "They let her cook" "They let her take [the candy] home.").

- ❖ **Parental Response To Injury Needs (PR-IN)** – the way parents respond to children's needs around injury after overreaching
  - o *NOTE: Only applicable to the Band-Aid and Hot Soup stories, unless an injury occurs during one of the other stories*
  - o Coder should note all occurrences of PR-IN, but the final score is the lowest level achieved.
  - o In this schema, parents' help being ineffectual indicates resistance, whereas a parent not providing any assistance during an injury indicates avoidance.




0. Parent meets the child's need for help [NOTE: CODE 1A IF PARENT MEETS NEED ONLY AFTER PROPMPTED BY EXAMINER]
   - ❖ Parent takes care of the child's need or offers assistance to the child to meet his need (e.g., puts a Band-Aid on his hand, "I'll go get you a Band-Aid." "That looks like it hurts really bad. Let me help you.", go to the bathroom together; Dad gives Mom a Band-Aid for Robert)
   - ❖ Parent needs to bring in someone else to help (e.g., the parents take the child to the hospital, "I'm going to go get grandma to help.", "Michelle will help you.")
1. Parent acknowledges need, but does not help
   - ❖ Parent refuses empathy or helping and is actively dismissive [REH-A] (e.g., parent refuses to take care of injury when asked, "No, I won't help you.")
   - ❖ Parent encourages the child to meet the need themselves (e.g., "Go get a Band-Aid." "Go put your hand under cold water.")




All help is ineffectual and fails; at the end of the story the child's injury has not been repaired/remediated.

- ❖ Parent attempts to help, but the child's need is ultimately not met (e.g., "And then he dies." Parent put Band-Aid on, but the child continues to bleed)

2. Parent Uninvolved or Unresponsive
   - ❖ Parent is not involved in the story after the stem
   - ❖ Parent involved in the story beyond the stem, but does not respond to the child's need [REH-P]; parent is passively dismissive of the injury (e.g., parents ignore child when he says he needs help with his cut hand; parents "Your hand is burned." "For big kids it doesn't hurt")

- ❖ **Mentalization-** A character gets into the mind of one of the other characters or the child narrator gets into the narrative frame. The character or child narrator may offer rationales for action based on thoughts/feelings of others. Problem solving and future-oriented thinking are also included.
  - o *NOTE: If there is evidence of mentalization, code as yes and explain/note what was said or done.*

    - No: No evidence of mentalization
    - Yes: One of the following forms of mentalization is present
      - Character or child narrator gets into the mind/thinking of a character; talks about what the character is thinking, desires, or intends; may include false beliefs (e.g., "He knew she was lying.", "Mom is thinking that...", "The store clerk thought that...", "He thought his mother knew...", "Dad knew mom would say no.", "The store clerk wanted to call the police.", "He wants…", "He tried to…", "Mom, did you want me to do something different?", "Robert, you should have known…")
      - Character or child narrator demonstrates a character using future oriented thinking (e.g., "Robert thought that if he went...", "Mom believed that if she said no, something bad would happen.", "He felt as if he could...", "I thought if I went…", "I don't want to say no because something bad might happen.", "I feel like I can…")
      - Character or child narrator acknowledges a character's conflicting ideas, thoughts, or beliefs (e.g., "Robert knew he wasn't supposed to, but he thought he could get away with it.", "I know you didn't want me to do it, but I thought I could get away with it.")
      - Character or child narrator acknowledges one character's beliefs about another character's beliefs (e.g., "Robert thought that his mom knew...", "Mom believed that Robert thought...", "I thought you knew…", "Did you think I was going to?", "I thought you wanted me to.")
      - Character or child narrator mentions two characters talking about the thoughts of a third character (e.g., "Dad, didn't we think Mom already knew?", "Dad and Mom thought Robert knew better.")

- ❖ **Narrative Coherence** – The degree of logical sequences of events in the child's narrative. Focus on the sequence of the story, not the depth of the story (a brief story can still be coherent). Narrative coherence is not related to the resolution of the challenge or the affect of the characters.

0. No response
    - ❖ The child does not continue the story or says, "I don't know what happens.". The child may repeat the entire story stem or a portion of it without any additions.
1. Incoherent
    - ❖ The child provides a fragmented (disorganized) narrative, which contains separate pieces of the story. The child does not return to the original story stem. Fragmented pieces of the narratives may relate to the original theme of the story or to some other theme of the story. This code is to be used if more than half of the story is incoherent. These stories do not cover the whole story, but only a small part of the whole conflict (e.g., the child presents fragmented ideas, sometimes short action sentences; examiner may disrupt the flow of the content).
2. Partly Incoherent
    - ❖ The narrative is partly coherent and logical. Part of the story, however, is incoherent. There is a story line related to the story stem. Half or more of the story is coherent. The story may be mumbled or murky (e.g., did not respond directly to the prompt; does not complete or end the story; does not have a sequence of events).
3. Coherent
    - ❖ The narrative is coherent and logical, a sequential series of events related to the theme of the story stem. The child may insert additions to the story but does not change the original theme of the stem. There are no incoherent shifts in the story. Child can present a sentence, then examiner prompts, then the child presents another sentence as long as it make sense.

- ❖ **Parent Representations** – These are parent to child only, not parent-to-parent. Look for moments in which the parent is described as doing or saying something in the past, present, or future. Also, notice when the narrator talks about the parents even if their actions are not described or when the narrator describes the child character's expectations of the parent. Do not code references of the child to his or her actual parents. Several codes can be given for each narrative. However, even if the same code repeats itself, it is given only once. Code presence for mother and father. Pay close attention to the tone of voice: A gentle, soothing parental tone of voice should be coded as positive, whereas a cold and hostile tone of voice is coded as negative.
    - o *Note: Please check off all that apply.*

    - ➢ Positive- Protective
        - ❖ Parent is described as protecting the child from possible or actual harm (e.g., "Be careful with the pot."); A protective statement can also be coded as a discipline/control (i.e., "Don't get close to the stove or you'll be burned.")
    - ➢ Positive- Successful caretaking
        - ❖ Parent is described as engaging in caretaking actions, involving feeding or taking care of child when hurt (e.g., parents put Band-Aid on finger, parent feeds the family, parent carries child to bed).
    - ➢ Positive- Affectionate, warm, caring
        - ❖ Supportive and affirming; a broad category for a range of positive descriptions: hugging, kissing, complementing the child (e.g., "She likes to be with her Mom and Dad." "Give Mom and Dad a kiss.").
    - ➢ Positive- Helpful
        - ❖ Parent gives child concrete help or child seeks help from the parent and is assisted by parent (e.g., Parent helps find lost candy).
    - ➢ Negative- Harsh, Punitive

- ❖ Typically involves aggression or exaggerations of discipline to include killing or severe beatings that have a random (and out of control) quality (e.g., “I’m going to kick you.” ; Mother throws a pot at the child; blaming, sexualized affection).

- Negative- Rejecting
  - ❖ Parent pushes child away (e.g., “That’s an ugly picture.”).
- Negative- Ineffectual
  - ❖ Parent is unable or unwilling to help or assist the child when the child explicitly asks a question or asks for help.
- Discipline/Control
  - ❖ Involves a description of the parent as an authority figure who disciplines and controls the child. This includes the parent setting limits and/or telling the child what to do. May involve physical punishment as long as it is well-regulated and limited such as: a whooping or single slap to the face, butt beating with or without object, use of ‘the look’ as a threat, also includes verbal threats. The disciplining action is done quickly and stops; there are no random acts and if there is yelling, there is no screaming (e.g., “I told you NO!”, “Don’t do that.”); A parent’s limit can also be coded as protective (i.e., “Stay away from the stove so you don’t get burned.”)

## Appendix B

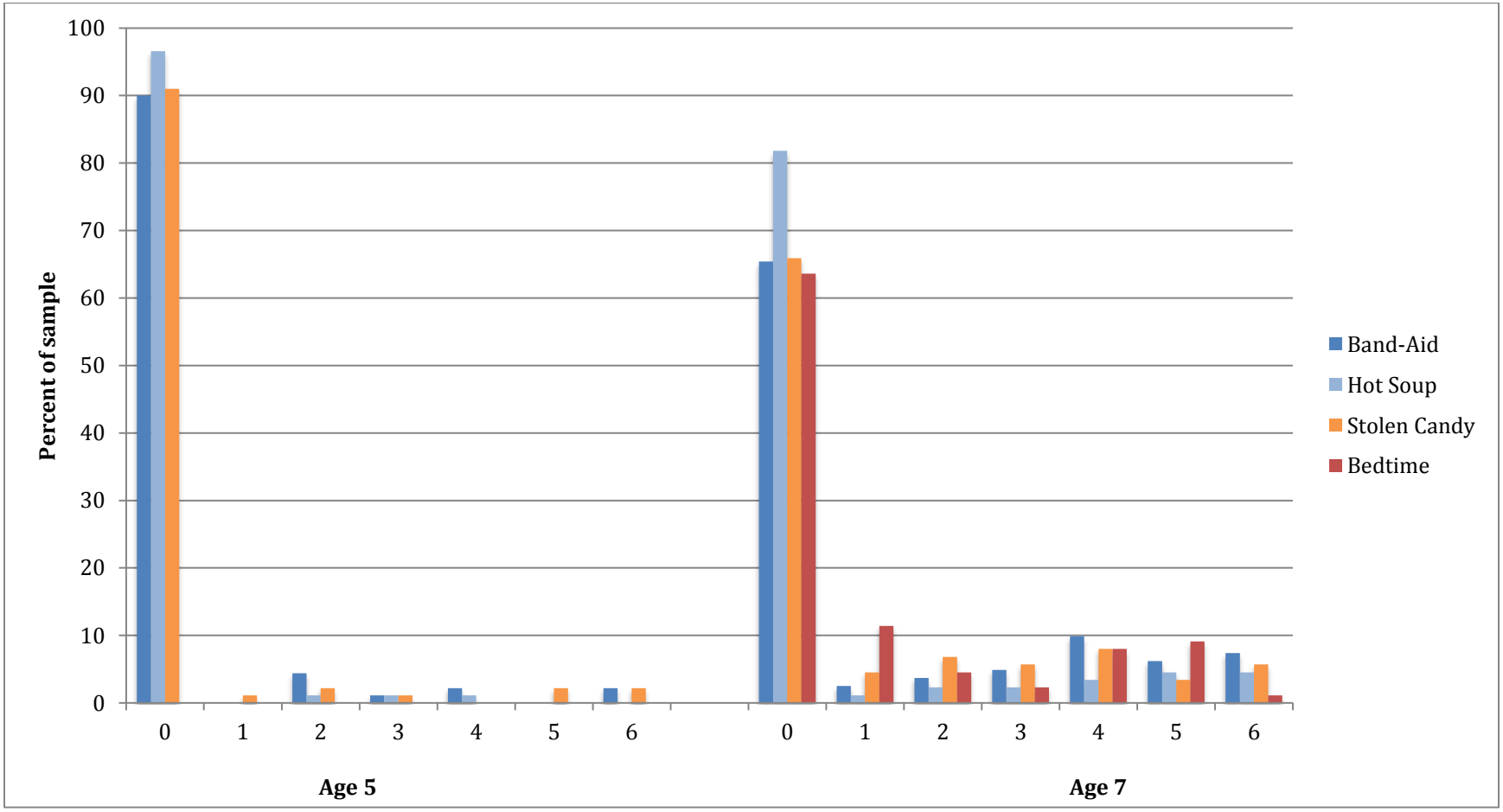



Figure B1. Number of Secure Characteristics of G/T Represented Within Stories and Ages

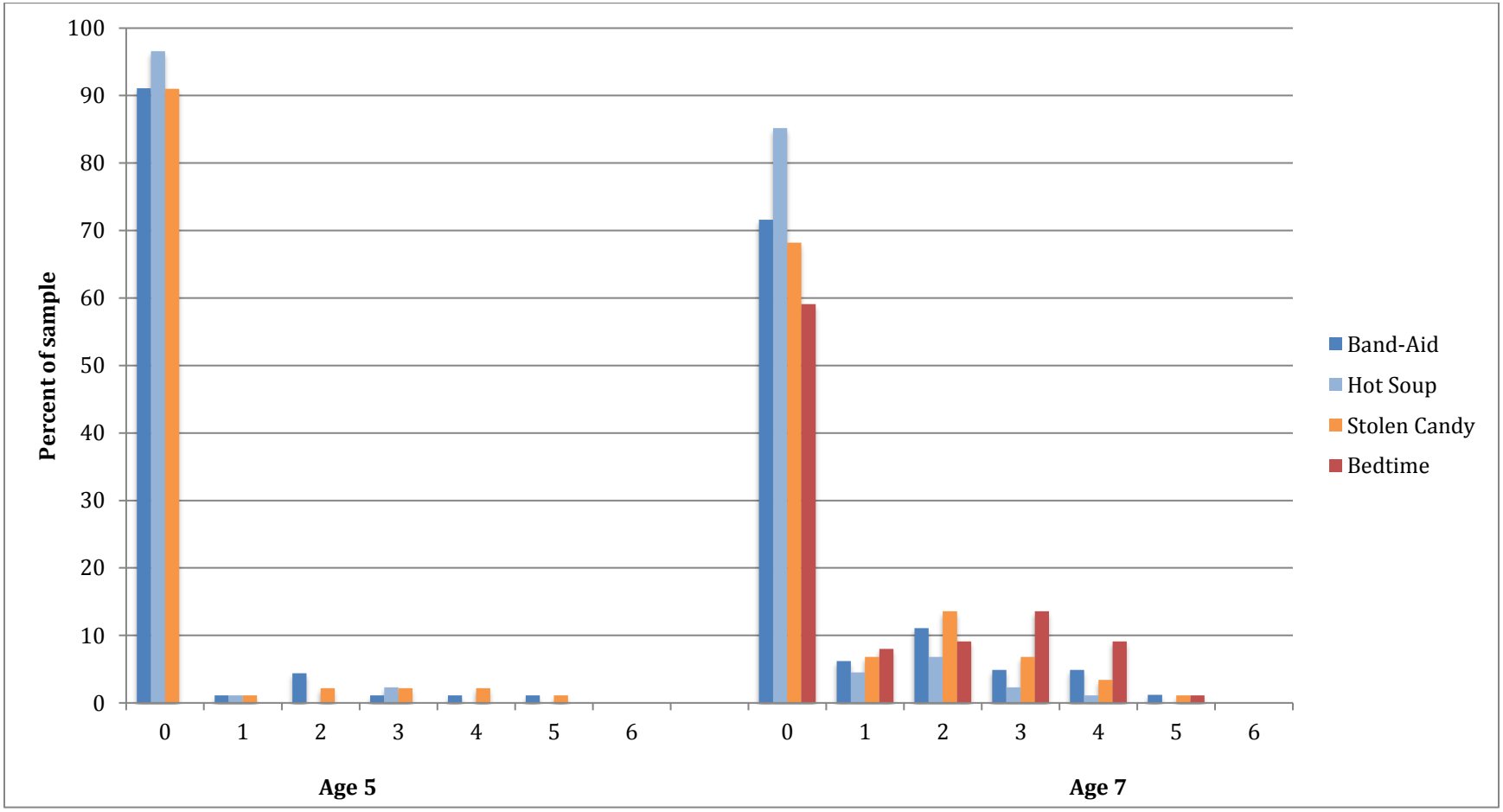



Figure B2. Number of Avoidant Characteristics of G/T Represented Within Stories and Ages

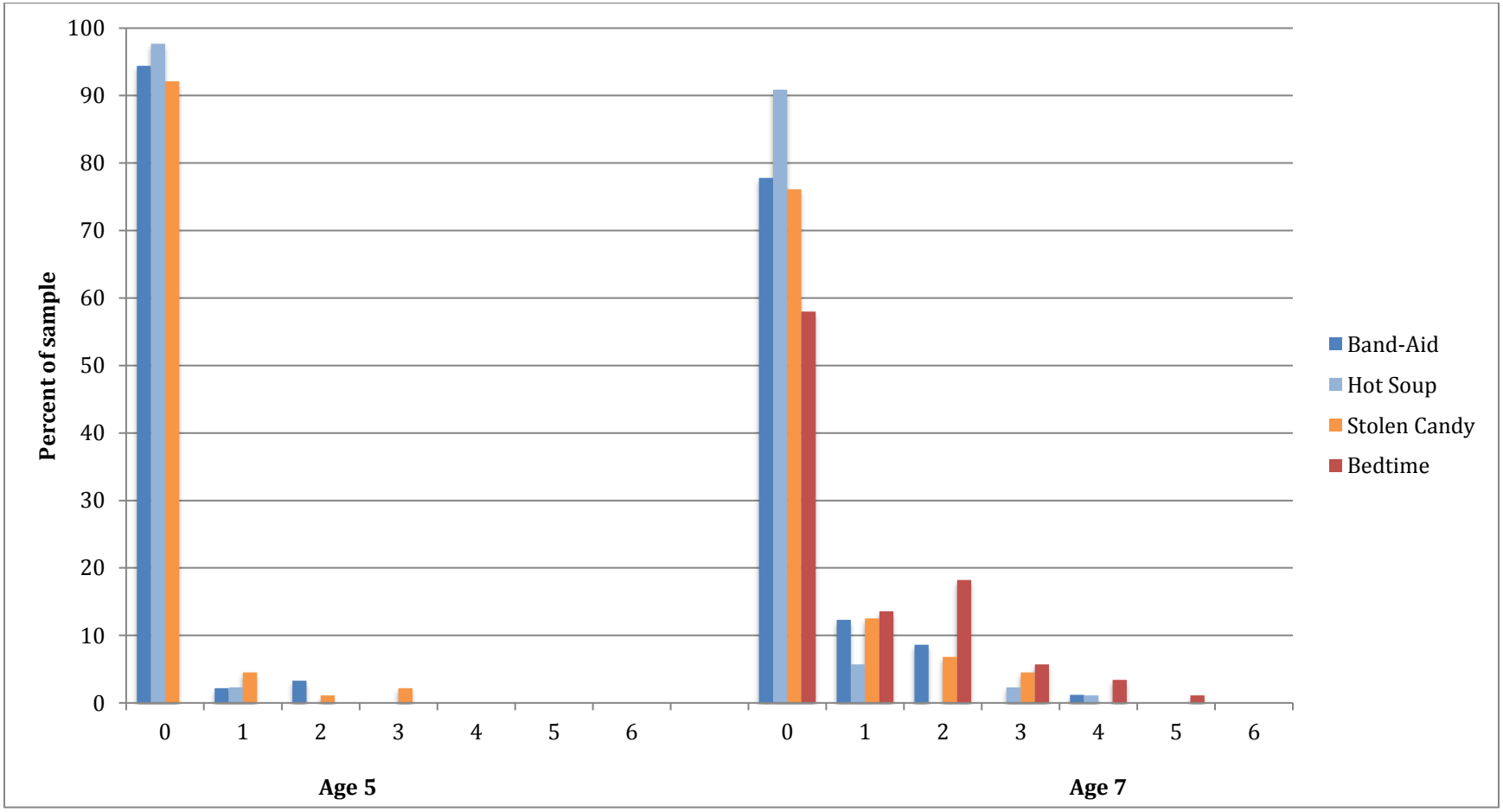



Figure B3. Number of Resistant Characteristics of G/T Represented Within Stories and Ages

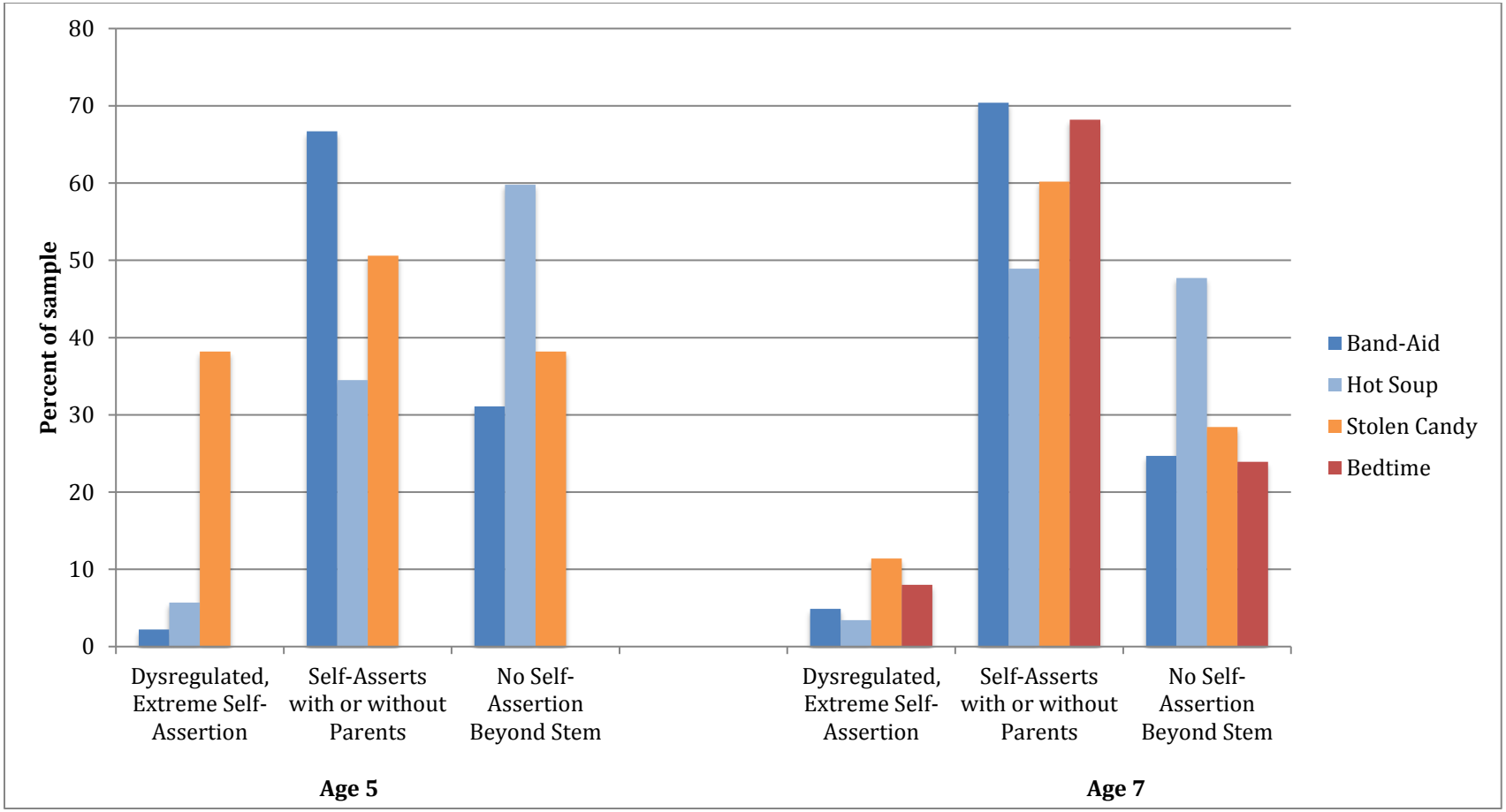



Figure B4. Frequency of SA Scores Within Stories and Ages

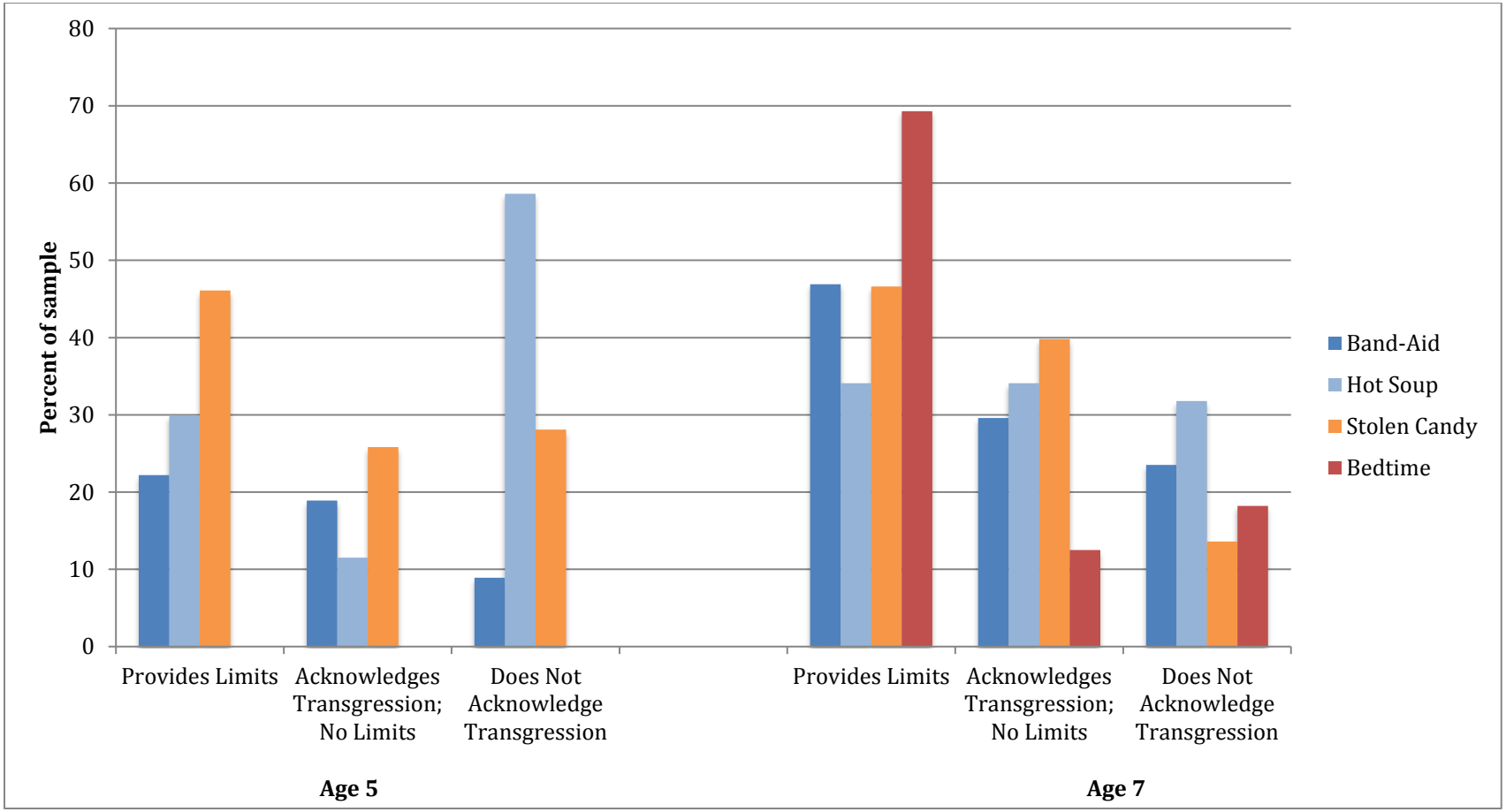



Figure B5. Frequency of MR-RB Scores Within Stories and Ages

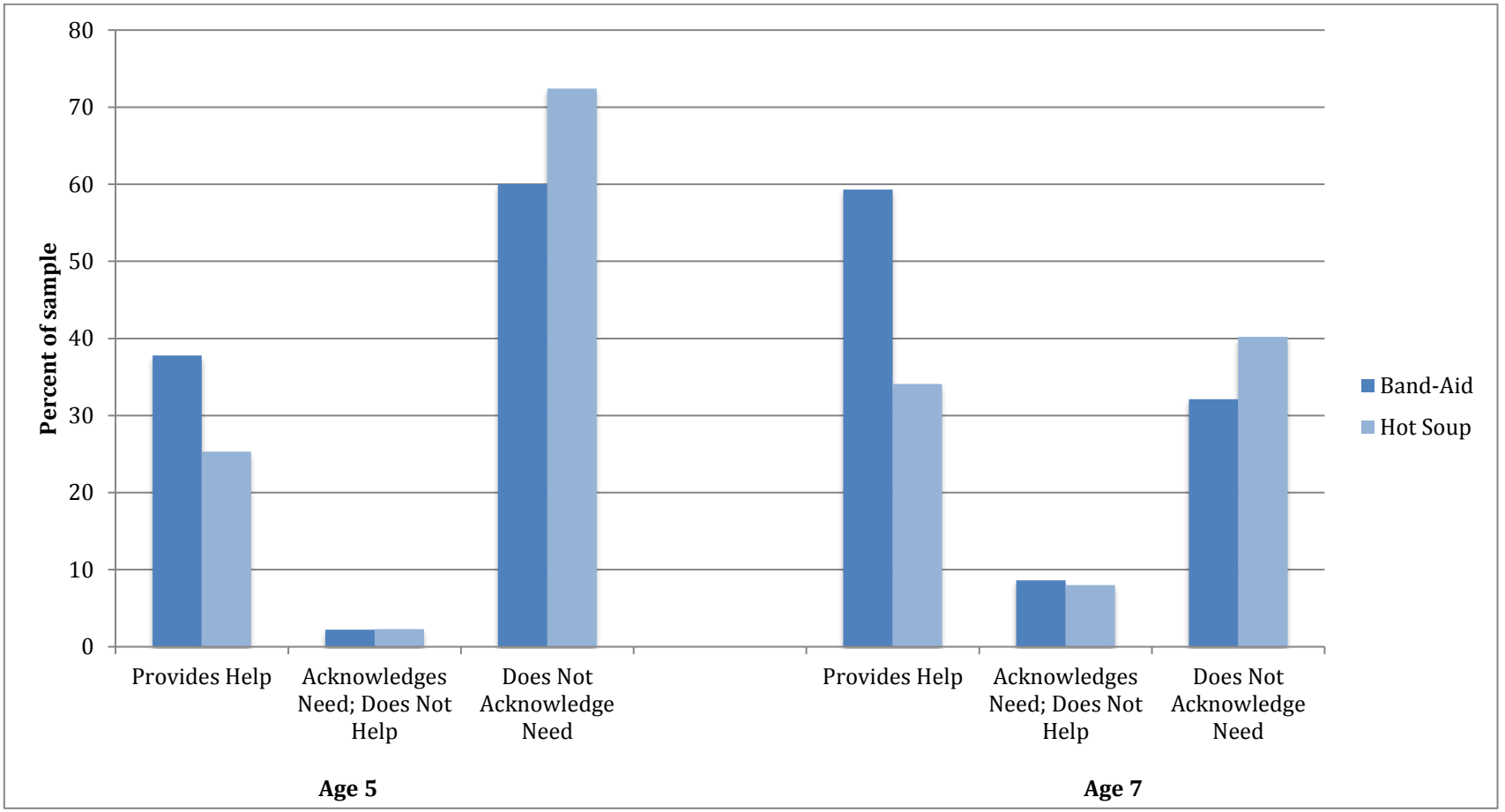



Figure B6. Frequency of MR-INJ Scores Within Stories and Ages

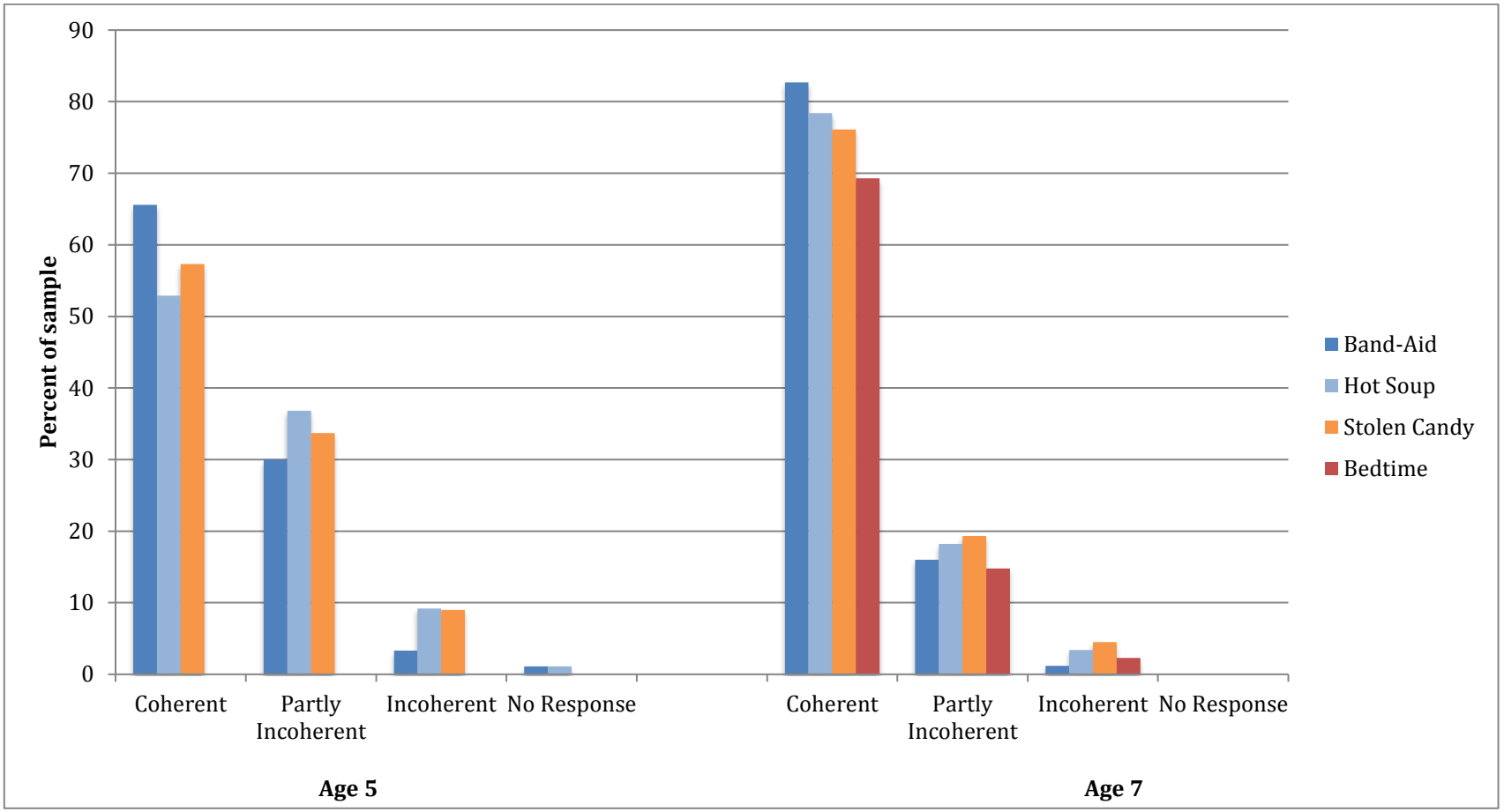



Figure B7. Frequency of Narrative Coherence Scores Within Stories and Ages