UNDERSTANDING PARENT-CHILD RELATIONSHIPS AND CHILD SOCIOEMOTIONAL ADAPTATION FROM PRESCHOOL TO MIDDLE CHILDHOOD USING A FAMILY SYSTEMS PERSPECTIVE

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Abstract

The dyadic parent-child perspective has long been the lens by which to understand the development of children's relationships to their parents and the development of socioemotional adaptation. In order to extend this understanding, the family system in which the child's relationships occur must be considered. In contrast to research that has traditionally favored dyadic perspectives, this thesis adopts a family systems approach and observes the functional quality of the family mealtime using the Family Mealtime Q-Sort (Kiser et al., 2010). In this thesis, the functional quality of the family system at mealtime is explored as a significant moderator and predictor in important parent-child relational representations and developmental adaptations, respectively. Participants included 71 children (M_{age} = 100.35 months, SD = 11.37, 38 girls) and their parents. The first study of this thesis uses a moderation approach to understand the effect of family functioning quality on the association between preschool attachment and middle childhood relational representations. In this study, the dyadic framework of preschool attachment is hypothesized to be influenced by the interconnected and ecological framework of the family system within which it is embedded and may provide a new understanding of the child's positive or negative relational representations of both the mother and father that might not otherwise be estimated from dyadic frameworks alone. Results from this study suggest negative representations of the mother are indeed influenced by the functional quality of the family system, especially for mother-child ambivalent and disorganized attachments. The second study of this thesis uses a hierarchical regression approach to understand the added predictive effects of family functioning quality and its dimensions on measures of concurrent middle childhood socioemotional adaptation. In this study, the gestalt of the family system is hypothesized to provide a new understanding in the prediction of socioemotional adaptation, over and above the

dyadic framework of parent-child synchrony. Results from this study suggest that over and above dyadic synchrony, family systems marked by more meaningful conversations and better adjustment to disruptions are linked to less problematic behaviors, especially for conduct symptoms. Together, the findings from this thesis extend previous research on the influence of parent-child dyadic frameworks (e.g., Dagan et al., 2022; Moss et al. 1998) and support family-level measurement (Hayden et al., 1998). Avenues for future research that consider the sociocultural and historical context of family life are presented.

Keywords: family systems, preschool attachment, middle childhood, relational representations, socioemotional adaptation

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Statement of Co-Authorship

This dissertation includes two studies. Both studies list Michael Yee as the first author and Dr. Jean-François Bureau as the second author. As the first author on both studies, I, Michael Yee, completed reviews of the literature, completed behavioral coding of family mealtime videos, conducted statistical analyses and interpretations, and drafted, structured, and edited manuscripts. As the second author on both studies, Dr. Jean-François Bureau organized and provided the data, provided guidance on theory, research design, and statistical interpretation, and assisted in structuring and editing manuscripts. All authors have reviewed this dissertation.

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"If the family were a boat, it would be a canoe that makes no progress unless everyone paddles." – Letty Cottin Pogrebin.

Introduction

Child development occurs as part of an intricate connection of family relationships. A child struggling to fit in at a new school, for example, may wholly rely on their family for support. The degree to and effectiveness with which family members encourage the child, bolster their self-worth, validate their identity, listen to their needs, and advocate for their expression in positive ways all work in service to evolve the child's personal relationships and personal development. Children are part of a uniquely complex family system that, when done right, allows them to flourish. In contrast, a family who only "achieve[s] a workable adaptation… [or] fail[s] to adapt" (Papero, 2019, p. 36) may function with difficulty, and children may not find the family to be a stable support system. Family functioning scaffolds early childhood development, and children experience its effects.

Despite its importance, the family unit is rarely explored as the context for child development. Decades of literature have mostly focused on the mother-child relationship, and only in recency have the father-child and sibling relationships been emphasized. However, the family may be able to provide valuable contextual and relational information that dyadic or triadic dynamics may not (Hayden et al., 1998). The central focus of this thesis is to conceptualize the family not as the sum of its parts, but rather as a whole functional and emotional unit of analysis in its own right (Bowen, 1974). The family is the proverbial backbone of childhood, and family functioning is the vehicle in which child development occurs.

Using archived data collected for children in preschool and middle childhood, this thesis utilizes existing data on measures of family functioning, attachment, relational representations,

dyadic synchrony, and socioemotional adaptation, and explores the family as the framework for early child development. The first study in this thesis explores the quality of family functioning as a moderating influence on the association between preschool-aged children's attachment behaviors observed with both parents and their representations of both parents five years later in middle childhood. Although Bowlby's notions suggest the relative stability of early parent-child relationships (1969/1982, 1973, 1980), empirical evidence suggests that something else may be at play. The family system, then, may be the necessary nuance that accounts for or explains the temporal concordance – or lack of concordance – of this association from preschool to middle childhood. The second study goes beyond dyadic parent-child relationships and explores the quality of family functioning as a predictor of socioemotional and behavioral development. Although Bowlby's notions regarding the predictive power of dyadic parent-child relationships are well documented, the complexity of child development cannot be estimated from dyadic relationships alone. The family system, then, may be the necessary perspective that accounts for or explains an increase in predictive effects for socioemotional adaptations in middle childhood.

The family system – and more importantly, how it functions – is proposed to be the construct that makes meaning of these connections; family systems may indeed moderate, regulate, and build upon our existing understanding of child development. This introduction will briefly outline the roles and responsibilities of family life from a family systems framework, the construction of the family meal as the context for family relationships, then link this context to the expression of attachment patterns, relational representations, and socioemotional and behavioral outcomes.

On Family Life

The reality of much of family life is that it often occurs in organized and typically informal relational communication events that are integral to the navigation of life, the collection of the family in meaningful ways, and the orientation of the self in relation to others (Goffman, 1967; Bakhtin, 1981). For example, a birthday party is an event dedicated to celebrating a family member in a special and symbolic way that may involve the collective consumption of cake or the act of gift-giving; this occasion is a means of temporarily putting our lives together with others in an orderly manner and therefore captures meaning in moments. Theoretical perspectives on family life suggests that families organize and regulate life in the face of imbalance or disruption (Turner, 1957, 1969, 1974), represent and manifest the culture they are embedded within (Staal, 1989), and describe the active interactions of individuals that help ascribe its meaning (Bell, 1997). These kinds of rituals and ritualistic behaviors are deeply sewn into the fabric of family life, and therefore come to represent crucial aspects of individual identity, collective identity, performance, significance, substance, and the family's place in time. Family life focuses on whole-family processes that are embedded in the cultural and ecological context of individuals' lives and therefore serves as the intersection between individual and family dynamics (Fiese et al., 2002; Denham, 2003, p. 306).

The Family System

The family is a relational system in which every member has a distinct role to play. The youngest might be the mood-maker of the family and might even get his older brother to participate in family activities he would rather not be part of; the mother might direct family behavior and take responsibility for her children's behaviors, even when unjustified; and the father might be the clown of the family, making sure everyone is laughing, even if it means looking foolish. Of course, these roles are not set in stone and the expression of these roles is

virtually infinite, but they place each individual into the structure of the family system. In this sense, each family is a unique network of relational ties unto itself; each family has its own "emotional tenor" (Wolin & Bennett, 1984, p. 1). Imagine a large family gathering for the holiday season; most family members will self-select with whom they choose to interact with throughout the day – cousins play together while adults catch up on each other's lives. When it is time to eat, adults are typically seated together at the dining table, while children are often relegated to a "kid's table." Over time – and once they reach a certain age, perhaps – children may effectively graduate and transition from their status as a child and join the "adults' table" in the overall family arrangement. In the larger extended family dynamic, the child may easily be perceived as a member of both groups – as a kid and as an adult. This literal and proverbial shift suggests that not only does the child's place in the family evolve, but so too does the compositional emotional tenor of the family system – the extended family now sees the child as an adult, and the child may see the adults differently as well. And although the extended family has welcomed this child to the table, the child's immediate family may require the child to fulfill the same role as they always have at home; their place in the system is also dependent upon the system. This is to say that the family is the context that foster's child development, but also that this context changes and responds to the child as well. In early childhood, the family is what cultivates meaning to the child's development.

Family Systems Theory

This brief sampling of communal and holistic family relations in a comprehensive family system is the core of Family Systems Theory (Bowen, 1974). This theory was developed on the basis of psychoanalytic theory and observations of the mother-child dynamic in clinical settings; although the child's emotional process were typically only attributed to the mother, psychiatrist

Murray Bowen witnessed the influence of fathers visiting his clinic, which prompted him to theoretically and clinically extend this process to the "larger emotional system" (Kerr, 1981, p. 229) – the family. Family Systems Theory conceptualizes the family unit as a system in which the interpersonal and emotional relationships of its members are taken into account and are the functional components that characterize and allow for the family's unique "emotional tenor" to be established, maintained, and augmented. The relational behaviors of family members are intimately tied to those of other family members, which both influence and are influenced by the entirety of the family system.

In many ways, Family Systems Theory is itself situated in the theoretical foundations of Bronfenbrenner's ecological theory, which models the child at the center of concentric circles of influence (Bronfenbrenner, 1979). However, rather than adopt the entirety of Bronfenbrenner's approach, the scope of which may be too impractical to tackle, the scope of Family Systems Theory allows us to focus on and address the specific relationship between the child and the family system with a systems- and process-oriented approach. Its focus is its benefit, yet it should be noted that this focus does not account for other important sources of influence, even within the child's microsystem, so we caution against suggesting that the family systems approach is sufficient to understanding the full extent of the child's context. However, conceptualizing the family as a system with working parts allows us to understand its functional quality.

Indeed, at its foundation, Family Systems Theory proposes that the family as a whole is more than the sum of its individual parts; the family system has its own compositional quality and is a level of analysis that is unique to itself and is shaped by a complex and cohesive system

of functional connections between parts. Indeed, in helping to define the family as a system, Jackson describes:

> "Even if the object of study is ostensibly the family unit, any examination of the characteristics of the various individual family members remains in the domain of individual theory… It is only when we attend to the transactions between individuals as primary data that a qualitative shift in conceptual framework can be achieved…. We need measures which do not simply sum up individuals into a family unit; we need to measure the characteristics of the supra-individual family unit" (1965, p. 5).

In essence, the family system is being able to see the forest for the trees; and inspection and summation of subsystems may obscure the larger family picture (Hayden et al., 1998). The child may have excellent relationships with each parent, and parents may have excellent relationships with each other, but the child's relationship to their sibling, for example, may derail the family system. Collectively aggregating these subsystems in this manner may fail to account for a dysfunctional sibling dynamic that meaningfully interacts with other subsystems in the overall family system and wrongly suggest that for the most part, the family system functions optimally.

Early theoretical thinking suggests that the family is a goal-seeking system; the degree of unification for, commitment to, and investment in certain goals such as emotional development, aids in defining the family's functional quality (Broderick, 1993). According to Family Systems Theory, the adaptive function of the family is to achieve emotional equilibrium of the family system and its connections. The development of psychological problems is theorized to be the result of a disturbance or dysfunction in the emotional balance of the system as a whole.

Specifically, "symptoms reflect a failure of adaptation by the system and are exaggeration of normal processes (Kerr, 1981, p. 235). The functional quality of the family system is not a dichotomous distinction, but rather a flexible and shifting continuum of "adaptive effectiveness" (Papero, 2019, p. 36), and as such, works under the precept that families are functionally purposeful for child development. In other words, the goal of family functioning quality is child development. Conceptually, the McMaster Model of Family Functioning (Epstein et al., 1978) – which is theoretically tandem to Family Systems Theory – conceptualizes the family system as one that accomplishes tasks, especially with regards to the developmental outcomes of children. The "task" of emotional development, for example, is allocated to the functional quality of the family system; poor family functioning may suggest a poor emotional development trajectory.

Assessing Family Functioning

The McMaster Model of Family Functioning informs much of the current repertoire of methodological assessments designed to measure family functioning. Indeed, the McMaster Structured Interview of Family Functioning (McSIFF; Bishop et al., 1980), which was developed alongside the McMaster Model, is a 2-hour interview involving all family members and is typically used to rate clinical levels of family dysfunction. However, this assessment requires that families devote at least two hours – not including travel time, orientation, and debriefing – to take part in an extended, uninterrupted interview with young children in an unfamiliar setting. Additionally, the McSIFF is designed for use in clinical populations and with children who exhibit some psychopathology (e.g., Dickstein et al., 1998). Therefore, the McSIFF is a time-consuming and logistically taxing assessment and is relatively impractical for families. Similarly derived from the McMaster Model, the Family Assessment Device (FAD; Epstein et al., 1983) is a 60-item self-report measure also used among clinical samples. Each family member can

complete the FAD independently of each other and are asked to rate statements on a 4-point Likert scale. The FAD's ability to capture different perspectives is both its feature and arguably its flaw; it remains a subjective representation of the family functioning experience, and may be obscured by the child's limited comprehension, especially amongst younger children. These assessments are beneficial in the sense that they closely align with the constructs laid out by the McMaster Model, and have demonstrated their usefulness in clinical rating. Although some applicability has been shown among non-clinical families in the assessment of general functioning (Byles et al., 1998), these measures are more often used for psychiatric diagnoses and clinical judgement (Keitner et al., 1987a; Miller et al., 1992; Dickstein et al., 1998) and indeed do not "have the range of normative data that would be ideal" (Miller et al., 2000, p. 178). Furthermore, due to their foundations in the clinical health model, a lack of variability suggests these measures are perhaps less likely to capture a comprehensive and objective assessment of natural family functioning.

Assessing the family as a whole, then, is a unique challenge in and of itself. When family life occurs as a whole, it is the expression of a regular and patterned organization of family time that is meaningful and therefore more potent for evaluating the family system. Families regularly, routinely, and sometimes even ritualistically participate in the family meal. Indeed, families come together for the family meal most regularly among patterns of family time (Fiese & Schwartz, 2008). The family meal is not overly deliberate (i.e., a birthday party), nor is it formally prescribed (i.e., a wedding); it is a daily set of behaviors in which the whole family is involved. The experience of the family meal is tightly woven into the fabric of family life, and it is believed that it is the family meal that persists over generations in meaningful ways (Reiss,

1981). The family meal, then, is the setting with which the current study uses to assess the quality of family functioning.

Introduction to the Family Meal

At its most fundamental level, the family meal is the practice of eating together. Otherwise known as commensality – especially in the sociological and anthropological literature – the practice of gathering around food and eating as a group has been a reliable human behavior throughout much of recorded history and helps to connect cultures and contexts across time. Although some early philosophical accounts propose eating as mere sustenance for the body's biological needs (Plato, Gorgias and Phaedo), these perspectives fail to consider that the behavior of eating – not just consuming – is relational and social. Indeed, depictions of commensality throughout history are rarely interpreted in such a simple manner as sustenance and consumption to refill the body. Commensality may very well be dated as far back as 800,000 years, with evidence of hearths and burnt bone fragments at the site of Cueva Negra del Estrecho del Río Quípar in Spain suggesting that humans cooked and ate as a group (Walker et al., 2016); that fire was purposefully created or tended to in a hearth suggests that the eating of cooked food and the security of doing so together were more important to human survival and development than the dangers that fire itself inherently presents. Sumerian banquet scenes are depicted on Mesopotamian relief plaques that date back to the Early Dynastic Era, circa 2700-2500 B.C. (The Metropolitan Museum of Art, New York, n.d); that this event was carefully recorded suggests it had significant meaning. Leonardo da Vinci's depiction of The Last Supper – arguably one of the most famous examples of commensality – dates back to the 15th century; the breaking of bread and drinking of wine in The Last Supper were not done simply to sustain the body's hunger and thirst – they were depicted to "point beyond and beneath the particular to the

symbolic and material foundations of human relations" and provide "insight into general or metaphorical connectivity" (Goldstein, 2018, p. 43). These were symbolic and emotional acts of service and sharing done to express a relational identity among its participants. Literary works also revel in commensality as a special experience of human relations; "I will buy with you, sell with you, talk with you, walk with you and so following. But I will not eat with you, drink with you, nor pray with you" (Shylock, The Merchant of Venice, n.d.); that eating together and drinking together are exclusive communal acts – and presented alongside similar relational functions – suggests that they may be reserved for particular people and therefore, for a particular relational purpose. Over time and especially in antiquity, commensality displays inclusivity, exclusivity, status, and significance and therefore is highly "expressive of social relations" (Baxter & Braithwaite, 2006, p. 261).

Meals among families are also depicted in culture, but perhaps garner less recognition in sociological study. In the Houses of both Sutoria Primigenia and Julius Polybius in now-ancient Pompeii, lararium paintings depict families gathering around food in celebration and in sacrificial offering in honor of the Roman holiday of Caristia, which itself celebrated the love of family (Wikipedia, 2024). Dutch painter Maarten van Heemskerck's famous "Family Portrait" (c. 1530) was one of the first to depict the totality of the family as a unit, and interestingly places the family at a table of bread, fruit, and cheese (Wikimedia Commons, 2024). However, it seems that the family meal specifically has not received more dedicated efforts or attention until relatively recent history. Only in the past fifty years or so has the family meal in particular been considered a family tradition (Sharif et al., 2017). North American depictions of the family meal from the mid- to late-20th century portray a picturesque nuclear family – one in which mothers are responsible for the care and nurture of children while fathers are responsible for the family's

financial security. In the immediate aftermath of WWII, the predominant perspective was that the wife was expected to be the homemaker and have dinner prepared for the family by the time her husband arrived home from work, providing a stark reflection of the culture at the time. Naturally, as a cultural representation, the family meal was subject to the shifting social, political, and economic climate of the postwar era. The rapid increase of maternal employment in the 1960s to 1970s left little time for either parent to take on parental responsibilities such as preparing meals. Coincidentally, this era also coincides with the expansion of McDonalds and the prominent infiltration and dominance of fast food into the zeitgeist of American culture (Schlosser, 2012). Today, dramatic economic shifts have also meant that families simply have less time to spend with each other. Mothers and fathers are subject to the same historical pressures as before but compounded upon by an added pressure to excel and exceed in the workplace, provide even more for the family, and strive to achieve a healthy work-life balance; today's parents should "do it all." Additionally, parents do this in multiple avenues in life while managing a mountain of distractions; naturally, this lifestyle can make a coherent family meal difficult to do. At least in the North American context, the current prevalent cultural and societal norms suggest less gendered and more equitable family dynamics – mothers and fathers share roles and responsibilities, which may alleviate societal pressures and preserve the family meal as an important component of family life. Although the demise of the family meal has been speculated and often lamented upon (Lang et al., 1989; Murcott, 1997, 2012), the available empirical evidence alas shows mixed results. While some reports suggest very little change in the practice of family meals (Kiefer, 2004; Neumark-Sztainer, 2013), other reports indicate a significant decline since the 1970s (Hofferth, 1999; Putnam, 2000); the prevalence of the family meal as a household institution, then, remains relatively unknown. However, research suggests

that despite the chaos of life, families still manage to accommodate the family meal, with some families even spacing out the family meal over several hours to ensure that at least one parent is with the child(ren) at all times (Tubbs et al., 2005). Research on family meal frequency describes that about 70% of Canadian families report eating together 6-7 days a week (Woodruff & Hanning, 2009). At the very least, the family meal is still perceived as a mainstay of family life, and the family meal has always been and will continue to be an expression of family functioning.

The Family Meal as a Relational Context

Families use the mealtime to do all sorts of things: children might use this time to tease each other and make jokes, dad might use this time to update the family on his upcoming renovation plans, and mom might use this time to watch the news and catch up with daily events. When done together, the family meal is a space and time in which a collective family identity is established, maintained, and augmented, and family members establish, maintain, and augment their individual status in the family system in relation to other family members (Rothenbuhler, 1988; Rothenbuhler, 2006). Even doing nothing – sitting at the table looking at a phone or watching television – communicates a relationship to others.

"[C]onversation, talking about the day" and "togetherness, being together, eating together, relaxing, laughing" are reported to be the most paramount aspects of family functioning during mealtime (Fulkerson et al., 2008). Qualitative literature even suggests that parents view the family meal as a highly valuable opportunity for family communication and connection that provides teachable moments and opportunities to role model for children to ensure they have positive and healthy experiences; despite its expected difficulties (i.e., children being disruptive, lack of time, etc.), the family meal is perceived as the paragon of family communication (Middleton et al., 2020) – it is a time to be with each other. For parents, the function of the

family meal may be prescribed; to exercise and enforce parenting, demonstrate healthy behaviors and communication, and "[coach] children on social skill development, including emotional expression and interpersonal problem solving" (Lawrence & Plisco, 2017, p. 195-196). A child might interrupt their sibling at the dinner table, and the parent might use this setting as an opportunity to enforce certain social skills, for example. Children, however, also benefit from the regularity and stability of the family meal. Indeed, in a comprehensive review of 18 studies focused on family meal frequency and adolescent risk outcomes (Skeer & Ballard, 2013), a significant correlation was discovered between increased frequencies and decreases in mental health problems such as depression or depressive symptoms, suicidal ideations, and stress, decreases in alcohol use and misuse, marijuana use, cigarette use, and disordered eating behaviors. Notably, many of these results were particularly salient for adolescent girls and not boys. Other adolescent outcomes such as general illicit drug use, aggression or violent behaviors, sexual behavior, and poor school performance were inversely related to family meal frequency. Although these results may suggest directionality, it is important to consider that adolescents who do not experience these outcomes may simply be more likely to spend time with the family. In a nearly parallel review of 26 studies (Goldfarb et al., 2013), increased family meal frequency was identified in relation to decreased measures of adolescent tobacco, alcohol, and illicit drug use, and depressive symptoms, again mostly particularly for girls. However, this review also identified studies in which increases in self-esteem, well-being, and positive affect were related to more frequent, more prioritized family meals with both parents, with some of these results being more salient in boys. Although frequency is clearly important, these reviews do not assess the quality of family functioning in relation to earlier childhood developmental correlates such as

preschool attachment, middle childhood relational representations, or even socioemotional outcomes outside of adolescent delinquent or risky behaviors.

To the best of our knowledge, only two studies have utilized the family meal as a relational context for child development. The first study to do so revealed that the quality of family interactions in the mealtime setting significantly predicted attachment representations in middle childhood, over and above preschool-aged mother-child interactions (Dubois-Comtois & Moss, 2008). Specifically, researchers found that more coherent and reciprocal family mealtimes were associated with more Confident representations according to the Attachment Doll Play Classification System (George & Solomon, 2000; Solomon et al., 1995), in which Confident representations are conceptually similar to Secure (B) attachment. It should be noted, however, that Dubois-Comtois & Moss (2008) only considered mother-child interactional quality, as well as mother-child narrative-based attachment representations. However, our study will account for both mother-child and father-child attachments in preschool in an effort to find contextual associations to the child's own self-reported relational representations of these attachment figures five years later, particularly when this association interacts with and is moderated by family functioning quality.

The second study to use the family meal specifically as a relational context builds upon previous understandings of narrative talk in the mealtime setting and explored how the quality of family functioning predicted children's narrative abilities (Sabourin-Guardo et al., 2023). Indeed, a global score of family functioning at 3-5 years significantly positively predicted general narrative coherence and the ability to resolve story plots at 7-9 years based on the Attachment Story Completion Task (Bretherton et al., 1990). The researchers suggest that the child's ability

to resolve emotional stories may very well be due to the emotionally open nature of communication in higher-quality family meals.

Furthermore, research suggests that children are not typically active members of family rituals such as the family mealtime until the early- to late-preschool years (Fiese, 1993). The preschool years mark the beginning of the pre-operational stage (Piaget, 1952) and suggests that children have acquired at least the basics of language and engage in more goal-corrected interactions due to their increased perspective-taking abilities. The child may use the family meal to talk about a new friend they made at school, for example, but how family members react and respond to this news is just as telling. Active involvement in the relational functions of organized family gatherings occurs when children are linguistically and cognitively competent enough to do so – up until this point, their developmental abilities are limited, resulting in mealtimes that focus on feeding and eating behaviors (e.g., Westen et al., 2019) and not their relationships. This is not to say that the family system suddenly emerges in middle childhood specifically as a result of their increased cognitive abilities, but rather that the purpose and nature of family meals is characteristically different in middle childhood compared to earlier childhood. The family system is present at all times, but its functional goals and its functional expression may shift according to the needs and abilities of its members. Therefore, the family meal is an extremely privileged context with which to observe the nature and function of this relational quality in the family, the manner in which the family adapts to the needs of its members, and the extent to which these members' relationships are effective in the larger family system to promote family functioning.

Assessing Family Functioning in the Family Meal

The available measures of family functioning at mealtime are extremely diverse; "[t]he richness of family behavior is, paradoxically, the crux of the problem in doing research with a family context" (Hayden et al., 1998, p. 18). Therefore, there exists no official "gold standard" to assess family functioning at mealtime. Parent report measures are typically focused on parental feeding and child eating behaviors (e.g. AYCE-R; Davies et al., 1993), while studies guised under the family meal construct often use rudimentary and inconsistent single-item reports of family meal frequency (e.g., Robson et al., 2020; Larson et al., 2020; McCullough et al., 2020). Family functioning at mealtime, then, may be best assessed through direct observation. Among the dozen or so observational assessments (see Poppert et al., 2015), perhaps the most widely used observational assessment of family mealtime dynamics is the Mealtime Interaction Coding System (MICS; Dickstein et al., 1994). Indeed, both aforementioned studies of family functioning quality at mealtime (Dubois-Comtois & Moss, 2008; Sabourin-Guardo et al., 2023) used the MICS. Well-established among the literature (e.g., Mitchell at al., 2004) and developed in parallel to the McMaster Model of Family Functioning (Epstein et al., 1978), the MICS involves the observation of unstructured, naturalistic mealtimes, and is coded along several dimensions, as well as a dimension for overall family functioning. Each of these dimensions are independent of each other and as such, are rated independently; save for the overall family functioning score, the dimensions of the MICS are not conceptually considered against each other.

The family system, however, is functionally relational; therefore, the dimensions of an observational measure should too be relational. Similarly derived from the McMaster Model of Family Functioning (Epstein et al., 1978), the Family Mealtime Q-Sort (Kiser et al., 2010) is also an observational assessment of a naturalistic family mealtime setting. Its dimensions are nearly

identical to the MICS (Dickstein et al., 1994) and the McMaster Model of Family Functioning (Epstein et al., 1978), and similarly includes an overall family functioning score. Using videotaped family mealtime recordings, coders place a total of 54 relational statements across a flat and forced q-sort distribution in order to characterize a family by their most important features. Unlike the MICS, the hallmark of a q-sort methodology is that the significance of each statement is placed in relation to the significance of other statements; conceptually, certain dimensions hold certain weight over others depending on the quality of the family meal and the placement of these statements along the q-sort distribution. Assigning descriptive statements in relation to each other, and not just as a function of its own dimension, forces raters to consider the actual relationships between statements and further communicates why certain key statements are placed more or less significantly in the distribution than other statements (Waters & Deane, 1985). Therefore, the fixed nature of the Family Mealtime Q-Sort distribution allows for the consideration of behavioral significance rather than behavioral frequency or behavioral saliency. Because the foundations of the Family Mealtime Q-Sort are rooted in the McMaster Model of Family Functioning, these assessments, including the MICS, are theoretically and conceptually congruent and therefore share similar dimensions. Six relevant dimensions are identified in the McMaster Model of Family Functioning: problem solving, communication, roles, affective responses, affective involvement, and behavior control (Epstein et al., 1978). Meanwhile, the Family Mealtime Q-Sort identifies the following dimensions, which do not align perfectly but offer at least the same conceptual breadth of assessment – if not, more: positive tone, clear plan, meaningful conversation, involvement, lack of disruptions, parenting, problem solving, and adult in charge (Kiser et al., 2010). In fact, these dimensions were developed under the premise that the experience of successful family meals is rooted family functioning – in

interaction, information-sharing, purposefulness and deliberateness, and parenting (Kiser et al., 2010). Therefore, due to its methodological advantages and theoretical framework, the Family Mealtime Q-Sort (Kiser et al., 2010) is used in this thesis as a measure of family functioning quality at mealtime.

On Attachment

Inspired by works on animal imprinting (Lorenz, 1935) as well as Harlow's experiments with rhesus monkeys (Harlow, 1958), psychologist John Bowlby devised an ethological attachment theory (1969/1982, 1973, 1980) in an effort to explain the remarkable relationship he noticed that occurred between a mother and her child. Attachment Theory suggests that children – driven by a need for survival – engage in behaviors that promote their proximity to the caregiver in order to achieve a state of security, safety, and comfort. These behaviors are part of an organized attachment system, one that balances the child's desire to explore, the child's fear of the potential loss of the caregiver (e.g., the mother), and the caregiver's innate need for caregiving. For example, a crying child should promote the caregiver to attend to the child, engage in close contact, and display comforting behaviors. The hallmark of Attachment Theory proposes that for the child, the caregiver becomes a secure base from which to explore and a haven of safety to which to return (Cassidy & Shaver, 2016); the child feels safe to exercise their autonomy through exploration and is comforted knowing that the parent is physically and emotionally available if needed. According to Bowlby, the degree of activation of this attachment system is relative to the conditions that activate the system; indeed, "if [the attachment system] is moderately activated, the presence or soothing voice of the mother (or even a familiar substitute caregiver) may suffice" (Cassidy & Shaver, 2016, p. 6). The attachment system is incurably complex, and both the child and the caregiver must be active

participants in a goal-corrected partnership in order for the attachment system to be realized. Differences in attachment patterns come as a result of individual differences in the participation and activation of the attachment system.

To complement this theory, Mary Ainsworth devised the Strange Situation Procedure (SSP; Ainsworth et al., 1978) to observe proximity-seeking and exploration behaviors in infants aged 10-20 months. This behavioral paradigm consists of eight distinct episodes in which the child is subject to separation from the mother, the presence of a stranger, and the eventual reunion of the mother. The observable manner in which children behave and respond to their caregiver in these situations is then classified as one of four attachment styles: secure, avoidant, ambivalent (Ainsworth et al., 1978), or disorganized (Main & Solomon, 1990). A secure child explores freely in the presence of the caregiver, displays distress at the caregiver's absence, and most importantly seeks for comfort upon the caregiver's return. The caregiver is a "safe haven" for the child to return to in the face of a stressful situation. An avoidant child, however, does not perceive their caregiver to be a safe haven, and thus displays minimal distress in their absence, and does not seek for comfort at the caregiver's return. An ambivalent child exhibits distress at the absence of their caregiver, seeks their comfort upon their return, but is not comforted and continues to exhibit distress. A disorganized child is unable to form a coherent attachment strategy with a frightening, distressful, and unreliable caregiver, and therefore displays contradictory or out-of-context behaviors inconsistent with a goal, intention, or explanation. To date, the SSP (Ainsworth et al., 1978) is one of the most robust assessments of attachment and serves as a foundation for more novel forms of assessment for older children such as the Preschool Attachment Rating Scale (PARS; Moss et al., 2015).

Bowlby's initial beliefs implied that the child's relationship to the caregiver is virtually permanently available and therefore a more stable and predictable framework for attachment continuity. Although much of the empirical focus has been afforded to the mother as the caregiver, it should be noted that Bowlby did not disregard the father's influence altogether. Instead, he favored the harmony consonant with the mother's presence in the attachment relationship. Naturally, this perspective paved the way for the maternal monotropy hypothesis, which in its most fundamental form, defines that the child is raised solely by the mother (van IJzendoorn et al., 1992); in relation to attachment, maternal monotropy places the mother as the sole figure of importance and allocates others (i.e., the father) to subsidiary influence. However, this premise has failed to take hold in light of empirical literature. Early exploration of both mother-child and father-child relationships (e.g., Main & Weston, 1981; Main et al., 1985) provide compelling evidence for independence and integrative hypotheses. Supported by a foundation of seminal work (Lamb, 1976; Main & Weston, 1981; Grossmann et al., 1981; Sagi-Schwartz et al., 1985), attachment to each parent is asserted as an independent and individual phenomenon that reflects the unique framework, interactions, experiences, and expectations of each particular parent-child dyad; classification in the Strange Situation Procedure to nonmaternal caregivers – the father – requires this attachment to be independent from others. Importantly, the joint involvement of both the mother-child and father-child attachment relationships is hypothesized to provide a stronger explanation of child development than each attachment alone. This perspective has consequently inspired much of the existing attachment literature, especially for attachment patterns in the child's first 18 months (see Dagan & Sagi-Schwartz, 2018).

Preschool Attachment

According to Bowlby, children devise particular mental models based on schemas of cognitive scripts (Craik, 1952) to form unique internal working models (IWMs) of attachment figures. Internal working models are conceptual and representational models of the self and of others, as well as of expectations regarding behaviors, feelings, and emotions – they "anticipate, interpret, and guide interactions with partners" (Bretherton & Munholland, 2008, p. 102) – and therefore inform socioemotional and behavioral development (Bowlby, 1980; see Fearon et al., 2010 and Groh et al., 2012). These internal working models are the scaffolding that is constructed and shaped upon over time through consistent and cumulative emotional exchanges with attachment partners (Bowlby, 1969/1982, 1988; Main et al., 1985). Unlike infancy, which is largely dependent upon physical proximity, preschool-aged children are capable of engaging in verbalized goal-corrected interactions and characteristically have less of a need to be physically held by the parent. Therefore, the internal working models that have informed infant attachment up to this point must be updated to reflect the preschool child's needs and expectations.

The classifications of this attachment system in preschool remain relatively robust. At this age, secure, avoidant, and ambivalent attachments are largely classified in similar ways as they are in infancy. Indeed, a modified separation-reunion procedure designed specifically for the preschool years (see MacArthur Preschool Strange Situation; Cassidy & Marvin, 1992) was only modified to reflect "the more advanced locomotor, social-cognitive, communicative, and emotion-regulation skills of these older children (in Hoffman et al., 2006, p. 1020). Although organized attachments (secure, avoidant, and ambivalent) largely align well with infant classifications, preschool-aged children who "exhibit[]… a diverse array of disorganized or disoriented behaviors (Main & Cassidy, 1988, p. 415) such as "freezing, contradictory behaviors, and stereotypes" (Cassidy & Marvin, 1992; in Deneault et al., 2020, p. 492) can be further

specified into controlling-punitive and controlling-caregiving types. By the preschool years, the attachment system classifies both organized and disorganized attachments that better reflect the child's own development as well as the development of their relationships to both parents. It should be noted that we use the term "classify" for semantic and statistical clarity. Attachment measurements have historically used categorical distinctions to clearly classify attachment styles, but attachment behaviors are realistically not bound to any one typology and are indeed dimensionally distributed (Fraley & Spieker, 2003). Thus, the Preschool Attachment Rating System (PARS; Moss et al., 2015) was developed to better reflect a more accurately nuanced perspective of attachment. Rather than code children's behaviors one-dimensionally, the PARS allows researchers to simultaneously document multiple types of attachment behaviors; children may exhibit mostly secure behaviors while at the same time also exhibit some ambivalent behaviors. Therefore, overall attachment patterns can be classified for analytical purposes while maintaining the rigor of continuous measurement.

Theoretically, the underlying working models present in preschool attachment should be relatively consistent and demonstrate some stability or concordance; because this cognitive framework is not rebuilt with every new experience – but rather, built upon – the temporal course of these representations is expected to demonstrate some continuity. This perspective suggests that the overall representational quality of later-childhood parent-child relationships is foundationally based on early parent-child attachments; this conceptualization is not novel in the literature. One of the earliest works to systematically explore the stability of attachment in fact focused solely on disorganized attachments and found that the stability of disorganized attachments from 1-60 months (a five-year gap) "was remarkably strong," especially among middle-class samples (van IJzendoorn et al., 1999, p. 234). It should be noted, however, that all

but one of these studies explored attachment disorganization in infancy first, then in preschool; only one study (Main & Cassidy, 1988) analyzed disorganized attachment in preschool first, of which the temporal lag between assessments was only one month. Later work has revealed that general attachment stability is moderate, especially when the first attachment assessment is conducted when children are 6-12 years as opposed to 1-5 years, and when time intervals between assessments are at most 60-months as opposed to 180-months, suggesting only short-term stability (Pinquart et al., 2013). Indeed, among mother-child dyads explored at 15 (infancy), 44, and 51 (early preschool) months, research has shown strong concordance for disorganized/controlling dyads between 44 and 51 months, but weak concordance between 15 months and 44 or 51 months, suggesting that for the disorganized spectrum, stability may be a fluctuating dynamic across early childhood (Meins et al., 2018). Additionally, four-way (secure, avoidant, resistant, disorganized) and two-way (secure/insecure) attachment has shown moderate stability in infant-infant, infant-toddler, infant-preschool, and toddler-preschool time intervals (Opie et al., 2020). Of the four-way analyses, attachment security showed the most stability, followed by ambivalent and disorganized attachment patterns, and not avoidance. Notably, however, researchers discovered non-significant concordance in infant-toddler and infant-preschool time points when each developmental period was compared (Opie et al., 2020). These results align with previous findings that show four-way attachment stability only between 36- and 48-month-olds in a control group, but not among maltreated children (Cichetti & Barnett, 1991). More recent research has extended this understanding by evaluating attachment disorganization at four time points: from infancy (15-months) through the preschool years (44-, 51-, and 61-months) (Bureau et al., 2024). Interestingly, the prediction of stability in this study was not specific to the classification of previous assessment points, but rather, explored the

general pattern of disorganization at the four time points from a person-centered perspective (grouping participants with similar patterns), while taking into consideration reported stressful or major life events that may have occurred in the child's life during that period. Results revealed three distinct profiles of organized/disorganized dimensionality: *Stable Organized, Unstable Becoming Organized,* and *Unstable Becoming Disorganized*. Children classified as organized remained relatively stable throughout childhood; however, instability in those who were 75% to 100% more likely to become disorganized were also far more likely to have experienced life events involving loss (Bureau et al., 2024). These findings build upon earlier work that discovered the absence of negative life events was significant in maintaining four-way attachment stability, but the presence of negative life events was only significant to the relationship between disorganized/controlling (D) attachment behaviors at Time 1 and frightened (D) attachment representations at Time 2 (Bureau & Moss, 2010); disorganized children remained frightened partly due to this context of risk.

In light of the conceptual underpinnings of the caregiver-child relationship outlined by Bowlby (1969/1982, 1973, 1980), empirical work remains relatively inconsistent. Collectively, these studies come to suggest that discontinuities or fluctuations in the attachment stability and concordance of the caregiver-child relationship across the early childhood years may not be as simple as it seems, and thus may be the result of other factors. Research suggests that the lack of variability in insecure/disorganized classifications, disruptive or traumatic life events, dramatic changes in the child's biology, cognition, and emotion, and even assessment inconsistency are hypothesized to account for attachment instability (Pinquart et al., 2013; Vondra et al., 1999). Indeed, an important finding by Pinquart and colleagues (2013) shows that compared to the use

of only representational measures at each assessment point, stability decreases if studies utilize only "behavioral measures or [shift] from behavioral to representational measures" (p. 199).

However, as children age, their new abilities come to be reflected by changing assessments, so these shifts are not necessarily methodologically incorrect; in fact, this practice is common even in the early literature (Bretherton et al., 1990; Cassidy, 1988; Solomon et al., 1995). Observational assessments tailored towards earlier attachments are naturally more sensitive to situational impact (Lamb et al., 1985), while representational assessments designed to account for biological, cognitive, emotional, and social changes consequently tap into another form of attachment altogether.

However, research has yet to consider the macroscopic effects of the family system and its functional quality on the stability of the caregiver-child relationship. Although some research has identified significant life events – which often include family members (e.g., divorce, hospitalization, or death of a family member) – as disruptive to childhood attachment stability (Pinquart et al., 2013), these are not regular occurrences that influence the daily experiences of the caregiver-child relationship, or may only influence the transition from organized to disorganized classifications (Bureau et al., 2024). The lived reality of the family context within which this relationship is embedded may come to significantly impact the expression of the child's relational functions to their parents. Therefore, the first study of this thesis proposes that the concordance of childhood attachments from preschool to relational representations in middle childhood to both the mother and father may be attributed, at least in some part, to contextual factors; namely, the context of the family system is believed to moderate the concordance of this association.

After all, attachment is not an insular concept. It does not occur in isolated, controlled, dyadic behavioral paradigms as they are often observed in the laboratory; instead, attachment occurs in the family system in the presence of other family members and in everyday interactions (Marvin & Stewart, 1990). The attachment dynamic is but one function of a multifunctional family system. The relational functionality of the family system may effectively contextualize the child's attachment relationships and provide significant concordance to relational representations in middle childhood. A child may have an excellent relationship with their mother, for example, but a poorly functioning family dynamic may override or obfuscate their positive attachment to her; mother-child security is not threatened or diminished, but instead may be represented differently in the family context and therefore manifested differently in behavior.

On Middle Childhood

Due to its sophisticated cognitive repertoire, middle childhood is an ideal developmental interval in which to explore relational representations. The loss of egocentrism during the concrete operational stage signifies a more complex understanding of a self-identity that is relational to others (Piaget, 1952; Selman, 1980). Experimenting with relationships in middle childhood is evident in the child's proficiency in comparing and re-evaluating their own self in relation to the people around them (Pomerantz et al., 1995; Younger et al., 2012). Children in middle childhood are characteristically more adept at communication in both verbal and nonverbal forms and actively partake in goal-corrected partnerships with the people around them (Bowlby, 1969, 1982), integrating and correcting their social exchanges – an ability that is only in its early development and not yet sufficient enough in infancy or even the early preschool years. In middle childhood, children can effectively take their family members' goals, priorities, wants, and needs into account. A child may see their mother rushing to prepare and finish dinner

by the time the father arrives home from work and may ask her if they can help by setting the table in order to alleviate her work. In this example, the child understands that the mother is an important relational figure to them, empathizes with the mother's emotional state, evaluates current and future needs that are functionally important for a collective goal, verifies this need, and works to carry through this need – all the while shaping their relationship with their mother. This may also function to develop the child's representation of their father as an important and loved family member that is integral to the family mealtime. The child's relational partners are other family members, and consequently, the cognitive maturation of middle childhood also signifies an increased integration into the family dynamic. In fact, family ritualization and family meal frequency diminish after middle childhood and into adolescence (Compañ et al., 2002; Woodruff & Hanning, 2009), suggesting that the period of middle childhood may be the height of the child's family integration, and may be the best time to explore their relational representations.

Middle Childhood Relational Representations

Although based on a similar underlying cognitive framework of relationship quality with attachment figures (i.e., internal working models), relational representations are not synonymous with the attachment bond. This underlying framework predicates that the focus of attachment in infancy is physical proximity (Ainsworth et al., 1978). Hence, the attachment figure's physical proximity in infant separation-reunion procedures (SSP; Ainsworth et al., 1978) is necessary to express the attachment relationship. As children develop, they increasingly partake in verbal communication and begin to engage in goal-corrected interactions; hence, separation-reunion procedures and coding systems are modified to reflect cognitive development (PARS; Deneault et al., 2020). By middle childhood, the working models that have informed attachments up to this

point have mostly changed in nature and have come to be representative of the child's idea of the self in relation to attachment figures (Bowlby, 1969). While physical proximity remains important, representations of attachment figures in middle childhood are predominantly based upon "the availability of the attachment figure" (Kerns & Brumariu, 2016, p. 350), and are therefore characteristically different from attachments in infancy and even preschool. That is, the child has already largely defined their relationship with the attachment figure based on history, experiences, and interactions; this representation is the internalized function from which their reactions and interactions are based upon, even if the parent is not physically present. This is a stark contrast to infant representations, which inform and are informed by present behaviors based on the physical proximity of the caregiver. In middle childhood, the child's expectation should be that the parent is emotionally available if need be, and it is their representations that inform their relational functions. Then, it may be more valuable to assess attachment representations in middle childhood through representational measures such as the MacArthur Story Stem Battery (MSSB; Bretherton et al., 1990). Based on the cognitive and linguistic abilities that develop in late preschool and through to middle childhood, the MSSB is a doll-play paradigm that takes advantage of children's narrative abilities, presents them with a variety of 12 story stems involving conflictual family interactions, and invites them to describe what happens next. For example, in the warm-up phase of the task, children are presented with a birthday party stem and asked to "Show and tell me what happens next." This paradigm functions under the premise that children make sense of their experiences in the family and co-create new meanings through storytelling and therefore provides a window to the child's internal working model of the self and others. However, the MacArthur Story Stem Battery relies heavily on this narrative supposition and presumes that the child projects their own family upon the doll family provided

in the script, which is comprised of the mother, father, at least one sibling of the same gender, and sometimes a grandmother, the family dog, and two friends. The child may not easily identify with these figures or even with the composition of the doll family and may complete story stems in an inauthentic manner. Indeed, an early theorization of doll-play paradigms according to Stern (1995) suggests that children "entertain and maintain a formed wish of how reality ought to be" (p. 167) and may therefore incorporate representations of overly idealized relationships in addition to realized and current experiences and representations. More importantly, however, these representations are typically restricted to assessing the attachment relationship, as is the case with the widely used Attachment Story Completion Task (ASCT; Bretherton et al., 1990).

Children in middle childhood become increasingly considerate of others and are capable of enhanced self-awareness and emotion-regulation (Raikes & Thompson, 2005) and therefore, the parent-child relationship encompasses far more than a specific attachment relationship – parents are enforcers, teachers, and even playmates (Kerns & Brumariu, 2016). Working models in middle childhood reflect more general relational representations that express the quality of the general parent-child relationship. Thus, middle childhood relational representations in this thesis do not refer to attachment representations; rather, this thesis simply postulates relational representations as the child's overall relationship quality to the attachment figure, but not specifically in an attachment bond.

Therefore, our goal is to assess relational representations in contextual terms by taking into consideration the child's actual lived environment by using the Childhood Attachment and Relational Trauma Scale (CARTS; Frewen et al., 2013). Inspired by the Bene-Anthony Family Relational Test (B-A FRT; Bene & Anthony, 1957; Anthony & Bene, 1957), the CARTS was developed under the premise that "childhood maltreatment is perpetrated by adults known to the

child including those in caregiving roles (Frewen et al., 2013). Thus, it was originally intended to document relational trauma – maltreatment that accounts for the active role of family members (among others) in the creation of a context that might foster these experiences. Although the CARTS is predominantly used among clinical populations (Schnyder et al., 2017; Simonelli et al., 2017; Brown, 2014; Olff, 2015), a baseline of relationship quality is established by the CARTS through the use of general relational statements assessing positivity, negativity, and general affective disposition; in this thesis, trauma-related statements are excluded and therefore the CARTS measures the child's feelings of security with familial relationships (Justo-Nuñez et al., 2022). Therefore, the CARTS is not used as a screen for trauma, but rather as a measure of the child's relational representations with their attachment figures. The CARTS is an online activity assessment that involves the assignment of relational statements to whichever attachment figures the child chooses to include, and they are free to assign statements to whomever they wish, including no one at all. The procedural quality of the CARTS, in which relational statements are assigned to different family members, is helpful in assessing who the child's attachment figures are, and more importantly, directly and indirectly evaluates the child's representations of these figures. For example, a child may assign the statement, "This person made me feel better when I was scared or worried" to the mother but not the father, or to both, or neither of them; because of the unique relationally-contextualized design of the CARTS, the non-assignment of statements to attachment figures in equally as telling.

Critics of Bowlby have argued that the working models developed in infancy are insufficient to predict both continuity and discontinuity as they cannot account for chaos (Grossmann et al., 1999). Empirical literature has indeed provided some evidence in support of Bowlby's claims (1969), demonstrating some stability of early attachments. However, these

results are limited, as they appear to be only minimal to moderate in strength and often refer to secure attachments (Opie et al., 2020), with highly variable results among insecure and disorganized classifications (Pinquart et al., 2013; Opie et al., 2020), and with relatively short-term temporal concordance (Pinquart et al., 2013; Bureau et al., 2024). Thus, there remains ample room to explain the limited concordance between early childhood attachments and later childhood relational representations. While chaos is empirically untestable (Grossmann et al., 1999), and cognitive developments have been previously hypothesized among similar relationships (Pinquart et al., 2013), no literature to date has explored the influence of the family dynamic on this specific relationship. Therefore, the first study of this thesis evaluates how the quality of the family system during mealtime functions as an important contextual factor and moderating influence in the temporal concordance of preschool attachment behaviors and middle childhood relational representations. Relational representations to attachment figures are hypothesized to be a result of the interaction of preschool attachment patterns and family functioning quality.

On Developmental Outcomes

The grouping of childhood developmental outcomes into internalizing and externalizing symptoms has provided clinical usefulness (American Psychiatric Association, 2013) and therefore guides research in the realm of child development. Internalizing symptoms typically identify "disorders [that] are directed inward and are indicative of a child's psychological and emotional state" (Liu et al., 2011, p. 1) and include symptoms such as anxiety, depression, self-depreciation, and suicidal ideation. Conversely, externalizing symptoms "refer to a grouping of behavior problems that are manifested in children's outward behavior and reflect the child

negatively acting on the external environment" (Liu, 2004, p. 1) and include aggression, delinquency, and hyperactivity.

The development of internalizing and externalizing symptoms is conceptually understood to be multifactorial; and yet, the progression of developmental outcomes is often traced back to Bowlby's theories of attachment, which suggest that unavailable, unreliable, or inconsistent parent-child relationships leave lasting effects on the child (Bowlby, 1973). Thus, much of the available literature refers specifically to attachment, typically in infancy or preschool. It is disingenuous, however, to conceptualize the development of internalizing and externalizing symptoms in middle childhood to be solely linked to the attachment bond. Nevertheless, in the following sections, we present a brief exploration of the literature for both internalizing and externalizing symptoms in relation to the parent-child relationship in an effort to underscore the limitations of the parent-child perspective and offer a more comprehensive approach in the form of the family system and its functional quality.

Parent-Child Attachment and Internalizing and Externalizing Symptoms

Historically, literature on the parent-child relationship has been built from the foundations of the mother-child dynamic. Early emphasis on the mother as the child's sole emotional link allowed other researchers to follow suit, and analysis of the child's maternal relationship has taken center stage (see Lamb, 1976). Over time, this particular relationship came to be identified and categorized (Ainsworth et al., 1978; Main & Solomon, 1990), and the resultant abundance of empirical research since has used the mother-child dynamic in the prediction of developmental outcomes. In a meta-analysis, early mother-child insecure attachments – in contrast to secure attachments – suggest that a child is about "twice as likely to develop internalizing behavior" (Madigan et al., 2013, p. 681), and further analysis discovered

this association to be stronger specifically for avoidant attachments. Relatedly, a similar meta-analysis echoed these findings and revealed that again, insecure mother-child attachments – in contrast to secure attachments – were more strongly related to increased risks for internalizing behaviors, of which the strongest associations were found for avoidant attachments (Groh et al., 2012). Similarly, another meta-analysis of mother-child attachment and externalizing problems showed that while insecure attachments were moderately associated to higher levels of overall externalizing symptoms, the strongest effects were found for disorganized attachments, followed specifically by avoidant attachments (Fearon et al., 2010).

As the landscape of literature has been broadened by cultural changes, the child's paternal relationship has become increasingly involved in the conversation, and the father-child dynamic has too been used in the prediction of developmental outcomes. Alas, research provides mixed results; preschool-aged father-child attachment relationships have been revealed not to be linked to child self-reported internalizing symptomatology (Bureau et al., 2014), suggesting at the very least that the child's attachments to the mother and father are different and that internalized symptoms in middle childhood may be the result of more integrated relationships. However, father-child insecure attachment has been moderately linked to greater externalizing behaviors in a similar way to mother-child insecure attachment (Deneault et al., 2021).

Furthermore, mother-child and father-child attachments have been conjunctively analyzed as significant predictors of both internalizing and externalizing symptoms; meta-analytic results showed that a secure attachment to only one parent or insecure attachments to both parents were significantly associated with greater internalizing difficulties, in comparison to a configuration of secure attachments to both parents (Dagan et al., 2022). Additionally, a comprehensive exploration of preschool and early school-age attachments to both the mother and

father with the development of internalizing and externalizing symptoms (Badovinac et al., 2020) has found that in general, secure attachments to both the mother and father were related to lower levels of externalizing behavior. However, more specific results showed that greater externalizing difficulties in preschool were associated with mother-child insecure and disorganized attachments as well as father-child insecure attachments, and school-aged externalizing symptoms were significantly linked to early mother-child ambivalent and disorganized attachments. Indeed, disorganized attachments to both parents conjunctively were associated with greater externalizing symptoms, followed by a disorganized attachment to at least one parent, compared to disorganized attachment to no parents (Dagan et al., 2022). Interestingly, this suggests that at least one organized attachment with the parent – regardless of gender – may buffer externalizing behavior problems. Nevertheless, one study of specific insecure mother-child and father-child attachments has found that the interaction of ambivalent preschool attachments to both parents in particular is related to the development of externalizing behaviors in middle childhood (Deneault et al., 2022). At the very least, the inclusion of both parents aligns with the integrative hypothesis model, which suggests the attachment network provides greater predictive power (van IJzendoorn et al., 1992).

The Family as The Attachment Network

Although decades of literature have linked socioemotional development to the parent-child relationship – specifically the attachment relationship – development is contextually rooted to the family and is thus influenced by the child's relationships with family members and with the family system. Therefore, the second study of this thesis aims to extend this understanding by exploring the added predictive effects of family functioning quality on childhood internalizing and externalizing outcomes over and above mother-child and father-child dyadic synchrony.

Dyadic Synchrony

Parent-child relationships are increasingly driven by goal-corrected interactions in which both the parent and the child are responsive and attuned to each other's social, emotional, and behavioral goals, wants, and needs (Bowlby, 1969/1982). The proper and appropriate synchrony of this dyad, therefore, is a metric for parent-child relationship quality. Here, dyadic synchrony involves interactions that "maintain a shared focus of attention, show temporal coordination, and demonstrate contingency" and are therefore "well-timed, reciprocal, and mutually rewarding" (Bureau et al., 2014, p. 486). The coordination and communication of a synchronous bond forms a relational unit (Barber et al., 2001) that exists for both the mother-child and father-child relationships.

This is not to say that the attachment bond does not exist in a synchronous relationship, but rather that the assessment of synchrony – and not typical attachment markers such as proximity-seeking behaviors – in middle childhood is both conceptually and methodologically more appropriate. While assessing attachment security in younger infant and preschool-aged children is easily observable due to the manifestation of proximity-seeking behaviors, the same cannot be said for middle childhood. In middle childhood, attachment systems are not so easily triggered by the separation-reunion procedure and the manifestation and expression of attachment is not so direct; indeed, a child in middle childhood should not be scared or frightened when the parent leaves the room. Instead, children and their parents make common plans and communicate their respective goals with each other. Therefore, our methodological access to the quality of the parent-child relationship must adjust to capture more goal-corrected, collaborative, and synchronous interactions. Synchrony, therefore, is the behavioral manifestation of the quality of the parent-child attachment relationship in middle childhood, and

our measurement of dyadic synchrony in a playful laughing paradigm reflects this shift; dyadic synchrony acts as the metric for mother-child and father-child relationship quality in middle childhood. It is this synchrony that is accounted for in analysis in an effort to better understand the added predictive effects of family functioning quality on middle childhood developmental outcomes.

Objectives

The overall goal of this thesis is to explain the effects of the family system on child development from preschool to middle childhood. Research has yet to comprehensively explore the family as an important functional unit of influence on the quality and representation of children's relationships in preschool and middle childhood as well as the trajectory and estimation of socioemotional and behavioral development. Here, the family meal serves as the context for the family system to be expressed. The first study in this thesis seeks to understand the family system as a moderating influence on the relationship between preschool attachments and middle childhood relational representations. As functions of an adaptive family system, the optimal or suboptimal functioning of the family system is hypothesized to contextualize these relationships. The child's relationships to both the mother and the father are explored and are hypothesized to function differently as a result of the family context. The second study in this thesis seeks to predict internalizing and externalizing symptoms in middle childhood as a function of family functioning quality while controlling for the influence of dyadic synchrony. As a unique gestalt, the family system is an important system of influence that is hypothesized to influence developmental outcomes. The optimal or suboptimal functioning of the family system is conceptualized and evaluated as an added component of prediction over the quality of dyadic interactions with the mother and father. This thesis, then, addresses the theoretical underpinnings

of the Family Systems Theory from which it is built upon and aims to situate the family system and its functional quality as the necessary context upon which child development occurs.

The role of family functioning in moderating the relationship between attachment behaviors in preschool and relational representations in middle childhood

Michael Yee, Jean-François Bureau

Abstract

Unlike infant attachments, the parent-child relationship in preschool and middle childhood is increasingly informed by the child's more sophisticated cognitive and linguistic abilities (Piaget, 1952) that allow them to navigate important relationships in the family system. As the context for these relationships, the quality of the family system may come to significantly influence the concordance of parent-child relationships over the childhood period. Because the family system is theoretically irreducible (Bowen, 1974), an observational measure of the family mealtime is utilized. Therefore, this study investigates the relationship between preschool attachments and middle childhood relational representations as it is moderated by the functional quality of the family system. Participants included 71 children (M_{age} = 100.35 months, SD = 11.37, 38 girls) and their parents. At Time 1, preschool parent-child attachment was observed using a modified separation-reunion task (Cassidy & Marvin, 1992) and behaviorally coded according to the Preschool Attachment Rating System (PARS; Moss et al., 2015). At Time 2, relational representations in middle childhood were child self-reported using a computerized Childhood Attachment & Relational Trauma Screen (CARTS; Frewen et al., 2013). Family functioning quality was assessed using videotaped family mealtimes and behaviorally coded using the Family Mealtime Q-Sort (Kiser et al., 2010). Correlations showed that the father-child relationship is closely tied to the functional quality of the family meal, especially for secure and ambivalent attachments. Moderation analyses showed that for mother-child ambivalent and disorganized attachments, more optimal family systems revealed negative mother-child representations. Conversely, for mother-child caregiving attachments, less optimal family systems revealed positive mother-child representations. Thus, it is the optimal or sub-optimal quality of the family system that allows negative and positive representations to stand out,

respectively. These findings underscore the importance of contextualizing the child's relational representations in the family system.

The role of family functioning in moderating the relationship between attachment behaviors in preschool and relational representations in middle childhood

Introduction

During the preschool years, children continue to shape the unique attachment bonds they share with each of their parents and are able to adapt to the ever-changing needs and goals of others. As children develop into middle childhood, the quality and expression of their interactions, behaviors, and expectations surrounding their attachment figures becomes increasingly contextualized by the family environment (Marvin & Stewart, 1990). The parent-child relationship is part of a dynamic family system that is hypothesized to offer a contextualized interpretation of the manner and quality with which preschool attachments relate to middle childhood relational representations. The quality of the family dynamic, therefore, is believed to account for the concordance of this relationship from preschool to middle childhood; as the family dynamic changes, the child's relationships may change with it. However, any research on these relational representations in middle childhood have yet to account for the moderating role of the family as an influence on its association to preschool attachment. Driven by a comprehensive Family Systems Theory (Bowen, 1974), the current study explores how the quality of the family unit contextualizes and moderates the relationship between attachments in preschool and relational representations in middle childhood.

The Preschool Years

The attachment bond is the pillar of the parent-child relationship and is rich with relational information. In the preschool years, attachment becomes characterized by an increase in active participation in goal-corrected partnerships for both the parent and the child. Differences in the quality and expression of this partnership suggest differences in the quality

and expression of the attachment pattern; healthy, reciprocal, and responsive parent-child interactions suggest relatively secure attachment patterns, while inconsistent, unreliable, or even frightening parent-child interactions suggest relatively insecure attachment patterns. A core component of Bowlby's Attachment Theory (Bowlby, 1969/1982, 1973, 1980) is that the early attachment bond forms a significant working model of representations to the attachment figure that importantly continues into the later years of life. However, research suggests that the concordance of this relationship throughout extended periods of childhood may be informed by influences external to the parent-child relationship, such as significant or traumatic life events (Bureau et al., 2025), assessment inconsistency (Pinquart et al., 2013), or in this case, the functional quality of the family system. The family system in which attachment operates, then, may come to contextualize the quality of children's relationships.

Attachment is not an insular phenomenon, and theory has long emphasized a more holistic approach (Bowen, 1974; Stevenson-Hinde, 1990). Empirical research has shown that dyadic mother-child and father-child attachment relationships interact in ways that influence both reported and observed measures of child development (Iwanski et al., 2022). Similarly, conflict and cooperation in the triadic parent-parent-child coparenting function have been found to affect dyadic parent-parent and parent-child dynamics (Peltz et al., 2018). These findings suggest that the parent-child attachment bond is but a fragment of a more complex interactive system. Although isolated dyadic interactions might occur during the infancy years, as one parent often stays at home with the baby, the parent-child dynamic in the preschool years is much more likely to occur in the context of other family members, and especially in the presence of another attachment figure (i.e., the other parent). Indeed, a child who is securely attached to both parents may very well only seek comfort and reassurance from mom, even while dad is

present. It is a generally intuitive notion that the family plays a role in the parent-child relationship, and the goal of the current study is to explore this potential moderating effect from a developmental, family-systems approach.

This study proposes that the family offers a crucial context for the development of the parent-child relationship quality over time. Meta-analytic evidence for attachment stability, for example, shows that across very early childhood, as well as for developmental periods over five years, temporal concordance is only moderate (Opie et al., 2013; Pinquart et al., 2022). Research has previously pointed to possible explanations of discontinuity in the form of significant life events such as divorce or loss (Pinquart et al., 2013); however, the quality of the family dynamic may very well account for some of this discontinuity without the presence of dramatic – and often, negative – life events. An optimal and healthy family dynamic may even bolster positive relationships or perhaps mitigate the development of negative feelings. This study operates under the precept that the family system serves to contextualize the relationship between attachments in preschool and relational representations in middle childhood.

Middle Childhood

By middle childhood, the child's framework of their expectations regarding an attachment figure is thought to become increasingly stable and impermeable to change (Bowlby, 1980; Bretherton & Munholland, 2008). For example, a child in middle childhood is not likely to overhaul their entire representation of their mother because of one instance in which she does not pay attention to them. At this age, the child already knows who the mother is in relation to themselves and knows what they can expect from their individual relationship with her. Indeed, the quality of individualized mother-child conversations has been previously explored in relation to the link between attachment behaviors at 5.5-years and attachment representations at 8.5-years

(Dubois-Comtois et al., 2011). Results revealed that both expression of emotions and reflection on personal experiences during mother-child conversations were expectedly linked to more secure and confident representations at both time points, suggesting that the parent-child relationship is robust, at least when examined from a dyadic perspective.

Such that the attachment relationship in infancy relies on a dyadic proximity-based partnership, relational representations in middle childhood rely on goal-corrected interactions and a sophisticated understanding of the self in relation to others (Selman, 1980). This is not to say that the dyad is the central underlying force of infancy and preschool while the family system is guided by a different force – the family system – altogether. Rather, for infants, the entirety of the family system is perhaps not their primary context of communication and interaction. For children in middle childhood, the family system simply becomes a more present context in their lives as they begin to actively shape and form their relationships. More operational modes of thinking (Piaget, 1952), allow children to understand the variety of perspectives present in the family context and allow them to understand that their relationships are part of a much larger family context. The family remains the central and integral system from which relationships are based, despite children in middle childhood become increasingly involved with peers (Hartup, 1983). Relational representations in middle childhood, then, are believed to be influenced by the child's sharing in mutual, reflected, and contextual exchanges within the family system. This study proposes that these relational representations in middle childhood are a unique result of the interaction between early preschool attachments and the quality of the family system within which these attachments take place. In other words, the family system may contextualize the parent-child attachment relationship and change the way children relate to and represent their parents.

Middle childhood is a unique developmental period to explore these representations due to the relatively advanced cognitive developments that allow for the child to take into account the goals, needs, and priorities of the family system. This perspective-taking ability recognizes that the child can reconsider their relationships with their family members; their working model of relationships adapts to incorporate their individual attachments with the influence of the family to form new or updated representations. Just as infants are able to "respond flexibly to environmental changes while attempting to maintain a goal" (Cassidy, p. 5; in Cassidy & Shaver, 2016), representations in middle childhood should also remain flexible in the context of social environments such as the family. As the child develops to understand others, so too do they adapt to understand their relationships with others, and even more importantly, come to understand how these relationships function in the context of others. Cognitive perspective-taking in middle childhood, then, works hand-in-hand with the flexible nature of relational representations.

This study proposes that relational representations are an adaptive reflection of the child's relationship quality to their parents and the family context. Relational representations in middle childhood are hypothesized to incorporate input from early attachment bonds and the concurrent family environment and are therefore the cognitive and behavioral schemas that form the child's expectations of their parents' feelings, emotions, behaviors, and interactions. Due to their cognitive abilities, children in middle childhood are able to report on these representations themselves. Therefore, this study uses the Childhood Attachment & Relational Trauma Screen (CARTS; Frewen et al., 2013) to assess relational representations of positive, secure, and negative affect with each parent. Although much of the literature concerning the CARTS involves clinical populations (Schnyder et al., 2017; Simonelli et al., 2017; Brown, 2014; Olff, 2015), a recent review has acknowledged the CARTS as an instrument to measure "how warm

and secure familial relationships were" (Justo-Nuñez et al., 2022, p. 1830), and suggests that the CARTS may be used to assess general relationship quality and is not strictly designated for clinical attachment purposes. In the CARTS procedure, children are tasked with assigning relational statements to different family members as a method of evaluating the representational quality of their relationships. The child has the freedom to report upon their own family configuration and assign relational statements to whomever they wish; to one family member, some family members, all family members, or even no family members at all. The benefit, then, is that by assigning some statements to some family members and not others, the child reports both direct and indirect relational representations. Therefore, the CARTS is a particularly advantageous measure because; it makes the distinction between the mother and father as relational figures rather than treat them as one composite entity; allows for the assessment of the child's feelings of positivity and security in a non-clinical sample, and; its procedural freedom provides a relationally contextualized perspective of the quality that lies behind each of the child's relational representations. These representations are hypothesized to be informed by the early attachment bond and moderated in some way by the functional quality of the family system.

The Family System as a Moderating Influence

The primary context of the attachment system is the family system (Marvin & Stewart, 1990). The quality of this family system, therefore, is believed to play an influential role in the relationship between preschool attachment and middle childhood relational representations. Children at any age participate in highly interactive and highly relational family dynamics that effectively contextualize their relationships, and as a result, moderate the operation and expression of their representations. Conceptually, the family system is hypothesized to put into

perspective the association between preschool attachments and middle childhood relational representations. For example, a child may not seek comfort with a father with whom they have an ambivalent and resentful attachment with but may end up enjoying his presence in a fun family environment; the positivity of the family may effectively mitigate the child's ambivalent attachment and the child may come to represent him positively in the family context. Similarly, a child may have a secure and confident relationship with their mother and feel free to joke around and accept physical affection (i.e., hugs, kisses) from her, but become less inclined to do so at the dinner table in the presence of the father and brother because representations of them – which are characteristically different and may indeed be insecure or unconfident – come to inform the expression of the child's relationship with her in the family context. This is not to say that the child's representation of the mother completely shifts from positive to negative in reaction to each changing circumstance, but rather that the expression of a positive relationship may be dampened by the child's representations of and expression of behavior with other family members. The attachment bond may very well remain strong in dyadic interactions but may be expressed differently in a family environment that contextualizes these individual relationships as a function of their interactive qualities. Secure attachments may be represented negatively, for example, if the family environment does not foster optimal functioning. It is important to note, however, that these representations are not permanent and continue to be flexible in the contexts within which they occur. Namely, bad behavior as a result of negative representations may be present at the family meal and disrupt the quality of the family system, yet a secure parent-child attachment bond may remain. This vignette illustrates the complexity of relational representations; the child is able to account for their attachment relationships within a family

system, providing a context-dependent and contextually relevant representation of family members.

Ultimately, this study proposes that the child's attachment expectations are built upon by the family context and are therefore part of a much larger family system. Furthermore, this ability may be attributed to the unique intersection of the child's development with the family environment. Indeed, the influence of the family is believed to reach its peak during middle childhood (Fiese, 1993; Compañ et al., 2002; Woodruff & Hanning, 2009) when children are able to participate in the family dynamic in important relational ways due to increased perspective-taking abilities (Piaget, 1952). At this age, the child is well integrated into the family dynamic in different ways and with different people. It is their increased relational ability in middle childhood that allows them to consider their individual attachment relationships in the context of other relationships and in the context of the quality of the family system. Work by Dubois-Comtois & Moss (2008) has shown that "the contemporaneous family interactive context… is a better predictor of narrative-based attachment representations than early mother-child interaction" (p. 425). More specifically, Dubois-Comtois & Moss (2008) specified that while mother-child interaction quality was significantly related to middle childhood attachment representations, inclusion of the family mealtime dynamic accounted for an additional 14% of the shared variance and therefore effectively rendered mother-child interaction quality statistically null. These findings further assert the notion that the family is a significant function of middle childhood relational development and therefore should not be overlooked.

The Family Meal

Therefore, the family meal provides a regular, patterned, relational, and meaningful setting with which to observe the ways in which family members relate to one another; most

families use the family meal to connect with each other. According to Family Systems Theory (Kerr, 1981), the family unit has a certain compositional quality that cannot be ignored. The manner in which the family works, functions, adapts, overcomes challenges, and achieves goals, all contribute to a context that offers relational meaning for its members and in particular, children; a family that works well during the mealtime is "emotionally open, positive, and successfully balances the needs of individual members" (Dubois-Comtois & Moss, 2008, p. 426). Optimal family functioning ensures that the child's social and emotional needs are met. However, a family that does not work well may fail to properly address these needs. While previous work has only accounted for the family's influence on representations in relation to the mother-child relationship (Dubois-Comtois & Moss, 2008) this study explores both mother-child and father-child preschool attachment relationships, explores the quality of the child's relational representations to both the mother and father in middle childhood, and explores how this association is moderated by the quality of family functioning in the mealtime context.

Objectives

The preliminary objectives of this study are to investigate: (1) the association between preschool attachment and family functioning, (2) the association between preschool attachment and middle childhood relational representations, and (3) the association between family functioning and middle childhood relational representations. The comprehensive goal of this study, however, is (4) to investigate the moderating effects of family functioning quality on the association between observed attachment quality in preschool and relational representation quality in middle childhood. Set upon a Family Systems Theory framework that suggests that the interdependencies between family members are the mechanisms of family functioning, the quality of the family system is hypothesized to influence the association between attachments

and relational representations over time. Naturally, we expect at least some concordance between the child's observed preschool attachment to each parent and the child's middle childhood relational representation to each parent. However, we hypothesize that this association will be moderated by the valence and direction of the quality of the family meal. Specifically, we hypothesize that more optimal family functioning will strengthen preschool attachments marked by security and be related to more positive relational representations in middle childhood. Additionally, we hypothesize that less optimal family functioning will strengthen preschool attachments marked by insecurity and be related to more negative relational representations in middle childhood. However, we also hypothesize that more optimal family functioning may compensate for preschool attachments marked by insecurity and be related to more positive and less negative relational representations in middle childhood, while less optimal family functioning may dampen the effects of preschool attachments marked by security and be related to less positive and more negative relational representations in middle childhood.

Methods

Participants

Participants in this study were recruited via newspaper, radio, and online advertisements from 2008 to 2012. Data was collected at Time 1 (M_{age} = 3.89 years, SD = 0.73, Range = 3-5-years) and Time 2 which took place 5 years later (M_{age} = 8.37 years, SD = 0.89, Range = 7-11-years). Time 1 included 157 (opposite-sex, intact) families, and due to attrition (n = 74), there were 83 families left for analysis at Time 2, indicating an attrition rate of approximately 47%. Considering the five-year gap between time points and the necessity for bi-parental intact families, as well as the high work mobility in the region (i.e., parents in military forces and foreign affairs), this attrition rate is the norm and within standards. After removing cases with

incomplete data or cases that were unable to be behaviorally coded with the Family Mealtime Q-Sort (Kiser et al., 2010), a total of 71 families with complete data on family functioning quality were left for analysis.

Of these 71 families, a majority (88.7%) of families reported an annual household income above $75,000, with 84.5% of mothers and 70.5% of fathers having completed at least an undergraduate degree. Most families were of low socioeconomic risk. Furthermore, 81.7% of families identified as English-speaking, while 18.3% of families identified as French speaking. The majority of mothers identified their ethnic background as White/Caucasian (83.1%), while South Asian (5.6%), Chinese (4.2%), Black (4.2%), Arab (2.8%), Japanese (1.4%) and Other (2.8%) comprised the remainder of the sample. The majority of fathers identified their ethnic background as White/Caucasian (84.5%), while South Asian (7%), Black (4.2%), Chinese (1.4%), Latin American (1.4%), and Arab (1.4%) comprised the remainder of the sample. This sociodemographic profile provides an accurate representation of the region's population (Statistics Canada, 2017). Of these 71 families, 46.5% of children were reported to be male, while 53.5% of children were reported to be female. Attrition analysis of sociodemographic variables including age, child gender, annual household income, maternal education, paternal education, language spoken, maternal ethnicity, and paternal ethnicity revealed no significant differences between families who were included in the analysis and families who were not included in the analysis. Descriptive statistics of sociodemographic variables are presented in Table 1.

Table 1.

Descriptive Statistics of Sociodemographic Variables

	Mean	Median	Std. Deviation	Skewness	Kurtosis	Range	Min.	Max.
Child Age[a]	100.35	99.0	11.37	.22	-.80	46	79	125
Annual Household Income	7.52	8.00	.984	-2.42	5.62	4	4	8
Education - Father[b]	16.01	16.00	2.46	.69	.21	10	12	22
Education - Mother[b]	16.31	16.00	2.49	.34	-.33	10	12	22

Note: [a]Months. [b]Years.
N=71.

Procedure

Time 1

Children aged 3- to 5-years old and their parents were invited to the laboratory and participated in a separation-reunion procedure specifically modified for preschool-aged children. Two separate lab visits were scheduled three months apart and in counterbalanced order; one for the mother and one for the father. Similar to the Strange Situation Procedure (SSP; Ainsworth et al., 1978), the modified separation-reunion procedure consisted of four 5-minute episodes: (1) separation between the parent and the child, where the child is left alone, (2) reunion between the parent and the child, (3) a second separation between the parent and the child, again where the child is left alone, and (4) the second and final reunion between the parent and the child. This procedure typically lasts a total of about 20 minutes. This preschool procedure differs from the typical SSP in that the infant SSP outlines episodes in which the child is left alone in the room by themselves and the child is left alone in the room with the stranger; the modified preschool separation-reunion procedure outlines that the child be left alone in the room by themselves in

both separation episodes. Furthermore, "[t]he parent is less constrained in his or her behavior during free play, separation, and reunion; the caregiver is allowed to negotiate with the child on separation; and the parent is not specifically asked to pick up the child at the beginning of the second reunion" (Hoffman et al., 2006; p. 1020). Each parent-child dyad completed this procedure independently of the other. The entirety of the session was videotaped and behaviorally coded by three independent raters using the Preschool Attachment Rating System (PARS; Moss et al., 2015).

Time 2

Approximately five years later, a home visit was scheduled with the family to observe a family meal. Upon arrival, two research assistants were tasked to set up a video camera in an unobtrusive location to record the family as they ate a family meal. Both research assistants were instructed to leave the room out of sight, waited in another room or outside when appropriate, and waited for the family to finish mealtime. Families were simply asked to conduct and complete their meal as they normally would. No instructions were provided to the family and no time limit was placed on the family meal. Recording of the mealtime stopped after families instructed research assistants that they were complete. The shortest meal was 11 minutes 30 seconds in duration and the longest meal was 48 minutes 14 seconds in duration. Of the 71 families included in the analysis, 13 were conducted in French. The entirety of the mealtime session was videotaped and behaviorally coded by two independent raters using the Family Mealtime Q-Sort (Kiser et al., 2010). French families were coded by a separate French-speaking rater.

In addition to the home visit, families were once again invited to the laboratory and participated in further assessments. Two separate lab visits were scheduled, but assessments

conducted in the first lab visit do not pertain to this study. In the second lab visit, children were asked to complete the Childhood Attachment & Relational Trauma Screen (CARTS; Frewen et al., 2013). In the laboratory playroom, children were asked to comfortably sit in front of the computer with the CARTS program already loaded, while a research assistant verbally explained the preliminary component of the assessment. The child was tasked with entering up to a total of 11 family members and assigning their relationship to each. For example, the child may enter into the program a female adult family member with the label "Mom." A stick-figure image would appear on the screen with the appropriate label placed below the figure. This freedom allowed for the child to include their close friends as relational figures if they wished, as well as allowed the child to exclude certain family members at their own discretion if they did not feel they were part of their family. Once the research assistant had described the instructions, the child began the assessment. Children were presented one statement at a time and instructed to "click on the people that the statement was true for when you were growing up" (Frewen et al., 2013, p. 6). Using their mouse cursor, children could select any selection of family members as they wished, including themselves, and including no one at all. For example, if the statement "This person makes me feel happy" applied to both the mother and the father, they were free to assign it to both "Mom" and "Dad." If the statement did not apply to anyone, they were free to select a brown box on the screen labeled "Not Applicable." For the first three to four statements, the research assistant verbally described and repeated the instructions to ensure the child's comprehension. Upon completion, a "Congratulations" message appeared on the screen. This procedure took approximately 20-25 minutes to complete. Parents received monetary compensation and children received a toy for their participation. All procedures and methods were approved by the institution's Research Ethics Board.

Measures

Sociodemographic information. Parental report of child age, child gender, and annual household income was collected at Time 1 with one parent. At Time 2, both parents independently completed a sociodemographic questionnaire that included their annual household income and years of education.

Time 1

Preschool attachments. Based on videotaped recordings of modified separation-reunion procedures (Cassidy & Marvin, 1992), mother-child and father-child attachment in preschool was coded by three independent raters according to the Preschool Attaching Rating System (PARS; Moss et al., 2015). The PARS is a measure of six continuous scales of attachment: secure, insecure-avoidant, insecure-ambivalent, behaviorally disorganized, controlling-caregiving, and controlling-punitive. Coders assigned a score of 1-9 based on the observed presence or absence of the following modalities: body orientation/proximity, speech, gaze, and affect (Cassidy & Marvin, 1992; Moss et al., 2015). According to the Preschool Attachment Rating System (PARS; Moss et al., 2015), a rating of at least 5 is sufficient for classification. The PARS has been shown to possess adequate psychometric properties for the assessment of both mother-child and father-child attachment patterns (Deneault et al., 2020). In the original validation of the PARS (Deneault et al., 2020), based on double-coding of 20% of the sample, secure attachment demonstrated excellent intraclass correlations (ICC) for both mother-child (ICC = .96) and father-child (ICC = .81) patterns. Avoidant attachment demonstrated excellent ICC for both mother-child (ICC = .92) and father-child (ICC = .90) patterns. Ambivalent attachment demonstrated excellent ICC for both mother-child (ICC = .93) and father-child (ICC = .83) patterns. Disorganized attachment demonstrated excellent ICC for both mother-child (ICC

= .92) and father-child (ICC = .92) patterns. Controlling-caregiving attachment demonstrated excellent ICC for mother-child (ICC = .94) and father-child (ICC = .75) patterns. Lastly, controlling-punitive attachment demonstrated excellent ICC for mother-child (ICC = .88) patterns, and acceptable ICC for father-child (ICC = .60) patterns. These psychometric properties are presented in Table 2.

Table 2.

Descriptive Statistics and Intraclass Correlations for Attachment Scales.

Mother-Child Preschool Attachment						
Scale[a]	ICC[b]	M(SD)	Range of Scores	Distribution of Scores[c]		
				1-3	3-5	5-9
B	.96	5.43(1.86)	1-8.5	10.4%	22.2%	67.4%
A	.92	1.99(1.20)	1-6	78.5%	18.1%	3.5%
C	.93	2.74(1.68)	1-8	59.0%	27.8%	13.2%
D	.92	1.90(1.74)	1-8	81.9%	7.6%	10.4%
CC	.94	2.73(1.79)	1-8	56.3%	30.6%	13.2%
CP	.88	1.30(.88)	1-8	5.6%	5.6%	1.4%
Father-Child Preschool Attachment						
Scale[a]	ICC[b]	M(SD)	Range of Scores	Distribution of Scores[c]		
				1-3	3-5	5-9
B	.81	5.24(1.90)	1-9	16.7%	21.5%	61.8%
A	.90	2.49(1.44)	1-7	61.8%	29.2%	9.0%
C	.83	2.77(1.75)	1-7.5	50.7%	35.4%	13.9%
D	.92	1.78(1.61)	1-7	82.6%	9.7%	7.6%
CC	.75	2.55(1.78)	1-8	63.9%	21.5%	14.6%
CP	.60	1.28(.77)	1-5.5	92.4%	6.3%	1.4%

Note. From "Validation of the Preschool Attachment Rating Scales with child-mother and child-father dyads" by Deneault, A-A., Bureau, J-F., Yurkowski, K., & Moss, E., 2020, *Attachment & Human Development, 22*, p. 501. *N*=144. *M*=mean, *SD*=standard deviation, ICC=intraclass correlations. [a]B=secure, A=avoidant C=ambivalent, D=disorganized, CC=controlling-caregiving, CP=controlling-punitive. [b]Two-way, absolute agreement, single-measure intraclass correlations based on double-coding 20% of cases. [c]Participants' distribution on the scale.

Time 2

Quality of family functioning. Based on videotaped recordings of family meals, quality of family functioning was coded by three independent raters according to the Family Mealtime Q-

Sort system (Kiser et al., 2010). By observing the family meal in the family's own home, ecological validity was prioritized and a more global picture of relational interactions between all family members was provided. Based on the observation of specific events and interactions, including the lack thereof, as well as the overall feel of the family meal, coders assigned 54 different statements along a q-sort distribution. Substantiated by a q-sort methodology, these 54 statements were first sorted into three groups of 18 statements that corresponded to "Not Like This Family," "Neutral or Not Salient," or "Like This Family." Then, based on the same criterion, each group of 18 statements was further sorted into three groups of six statements. Therefore, the final q-sort uses a flat distribution of nine columns, with one end of representing the most characteristic statements used to describe the family meal, and the other end representing the least characteristic statements. Each column contained six statements. A rating of +4 was assigned to statements in the "Like This Family" column, a rating of -4 was assigned to statements in the "Not Like This Family" column, and a rating of 0 was assigned to the "Neutral or Not Salient" column. Therefore, each family had their own individual q-sort distribution. A Family Mealtime Interaction (FMI) score ranging from -1 to +1 was calculated for each family's individual q-sort distribution by comparing it against an independently derived q-sort. This independently derived q-sort was created based on the consultation of the primary author, their supervisor, as well as 8 experts, including professors, Ph.D. students, and child psychologist clinicians, and 8 parents – for a total of 16 consultations – who were given the Family Mealtime Q-Sort and asked to create a distribution for a hypothetical "perfect" family; thus, this independently derived q-sort represents the most optimal family functioning, and is used as the metric by which other families are assessed. To the best of our knowledge, no such q-sort was provided by the author of the Family Mealtime Q-Sort measure (Kiser et al., 2010), and

therefore the development of our own optimal family functioning q-sort was necessary to appropriately represent the population from which our sample was derived. Although some differences exist between a general American population and a Canadian population derived from the Ottawa-Gatineau region, our optimal q-sort simply allowed for a more ecologically valid analysis of family functioning. The Family Mealtime Q-Sort (Kiser et al., 2010) has demonstrated good interrater reliability and satisfactory validity when validated against similar measures such as the Mealtime Interaction Coding System (MICS; Dickstein et al., 1994). The original Family Mealtime Q-Sort (Kiser et al., 2010) outlines eight dimensions of family functioning: Positive Tone, Clear Plan, Meaningful Conversations, Involvement, Lack of Disruptions, Parenting/Teaching/Supervision, Problem Solving, and Adult in Charge. However, due to low item count and low Cronbach's alphas, Parenting/Teaching/Supervision (3 items, α = .37) and Adult in Charge (3 items, α = .46) were merged to create an Authority dimension (6 items, α = .51), while Problem Solving (3 items, α = .56) was removed. The Lack of Disruptions dimension was renamed to Adjustment to Disruptions to better reflect our behavioral coding. However, this study only uses the calculated Overall Family Functioning dimension intended to assess the overall feel of the family meal. Nevertheless, it should be noted that all dimensions are presented in Table 3 for posterity. In the current study, a total of 35 cases (49%) were double-coded while a total of 13 cases (18.3%) were coded by a separate French speaking rater, and any disagreements were discussed by the coders until a consensus was reached. Independent coders reached an interrater reliability of ICC = .75 on the overall family functioning dimension. According to reliability guidelines outlined by Cicchetti (1994), reliability coefficient values above .75 are considered to be excellent.

Middle childhood relational representations. Children in middle childhood self-reported their relational representations to their attachment figures using the Childhood Attachment & Relational Trauma Screen (CARTS: Frewen et al., 2013). Partly derived from the Bene-Anthony Family Relations Test (B-A FRT; Bene & Anthony, 1957, Anthony & Bene, 1957), the CARTS was developed under the premise that "childhood maltreatment is perpetrated by adults known to the child including those in caregiving roles" (Frewen et al., 2013, p. 4). It was originally designed to document relational trauma and maltreatment that accounted for the active role of family members (among other) in the creation of a context that might foster these experiences. To date, all known literature concerning the CARTS has focused on trauma for use in clinical populations (Brown, 2014; Schnyder et al., 2017l Simonelli et al., 2017; Olff, 2015). The composition of the CARTS includes constructs that assess general feelings of security, general positive and negative representations, general affective disposition, emotional abuse, physical abuse, and sexual abuse. The latter three of these, however, pertain particularly to trauma. For our purposes in exploring general relational representations, these three "abuse" constructs were removed from our CARTS assessment.

Our subscales were comprised of the following: Positive, Secure, Negative Affect, Negative Feelings From, Negative Beliefs From, and Negative Beliefs To resulting in a total of 39 statements for analysis. Due to the relatively low sample size, and in order to reduce the number of variables for moderation analysis, "Positive" and "Secure" subscales were retained while the following Negative subscales were composed: "Negative To – Total," which assessed "feeling[s]/thought[s]/behavior[s] originating in the self (respondent) that is directed at another person," and; "Negative From – Total," which assessed "feeling[s]/thought[s]/behavior[s] perceived to be directed at the respondent as originating within another person" (Frewen et al.,

2013, p. 6). Furthermore, the creation of these composite negative scales was conceptually driven by the understanding that representations are ultimately relational, as is emphasized in both the development of the CARTS (Frewen et al., 2013) as well as Family Systems Theory (Bowen, 1974; Kerr, 1981). Therefore, this study used a total of 39 statements across the following subscales: Positive, Secure, Negative To – Total, and Negative From – Total. Notably, the use of the CARTS in this study is as a measure of relational representations for use in middle childhood, and not as a screen for trauma or abuse.

In the CARTS procedure, children assigned statements to any selection of family members as they wished, including themselves, or even to no one ("Not Applicable"). For each family member, each statement was coded as either 1 = selected or 0 = not selected. In other words, if a child assigned a positive statement (i.e., "This person made me feel good about myself") to both mom and dad, both the mother and father would each be assigned a score of 1. Negative statements (i.e., "This person made me feel sad or upset") were coded in the same manner. Statements for which the children selected "Not Applicable," or situations in which children simply did not assign the statement, were also coded and tallied in the same manner (i.e., given a score of 0, indicating not selected). Mean scores of CARTS subscale dimensions were used, providing continuous values between 0 and 1.

Furthermore, although the child was free to construct their own family in the CARTS program with up to 11 family members, this study's interests lied with their reports of the mother, the father, the self, and any Not Applicable (NA) rating, and other relations (i.e., the siblings, the grandparents, etc.) were not considered in our analysis. Development of the CARTS shows significant Kuder-Richardson-20 coefficients for mother and father ratings ranging from .25 ("Negative Affect") to .62 ("Positive Affect"); typically, higher KR-20 values suggest greater

internal consistency. Therefore, the internal consistency of items within each subscale are suggested "to be within acceptable limits… across rating types and samples" (Frewen et al., 2013, p. 10), and convergent and concurrent validity was "generally supported" (p. 13) in relation to the CTQ (Bernstein et al., 2003) and the LEAP (Lum & Phares, 2005).

Analytic Plan

In this study, family functioning at mealtime as assessed by the Family Mealtime Q-Sort (Kiser et al., 2010) is proposed to moderate the relationship between preschool attachment as assessed by the Preschool Attachment Rating Scale (PARS; Moss et al., 2015) and middle childhood relational representations as assessed by the Childhood Attachment & Relational Trauma Screen (CARTS; Frewen et al., 2013). Amongst the 71 cases with family functioning at mealtime scores, any missing data present on PARS and CARTS measures were dealt with using an iterative Expectations Maximization (EM) algorithm, which estimates each new dataset based on an optimized regression calculation of the previous dataset. Because family functioning at mealtime is central to our study, this was done to retain as many cases as possible with family functioning at mealtime scores. A total of 71 families were analyzed using Statistical Package for the Social Sciences (SPSS Version 25; IBM Corp.).

Because this is secondary data, a post-hoc power analysis using G*Power was conducted. For a moderation analysis, a linear multiple regression with a fixed model and an R^2 increase was selected. A sample size of 71 and an alpha level of .05 was entered. Because this study is interested in the interaction effect of the moderator with the independent variable, one predictor variable was entered (the interaction between Family Mealtime Q-Sort and the PARS, respectively), while a total of three predictor variables was entered (Family Mealtime Q-Sort, PARS, and the interaction between Family Mealtime Q-Sort and the PARS). According to these

estimates, a moderation analysis is likely to detect a medium to large effect size. Given a medium effect size ($f^2 = .015$, $\alpha = .05$), a power of .896 is calculated. Given a large effect size ($f^2 = .35$, $\alpha = .05$), a power of .998 is calculated.

The analytic objectives are as follows: (1) partial correlations between preschool attachment to both the mother and father (PARS; Moss et al., 2015) and family functioning quality at mealtime (Family Mealtime Q-Sort; Kiser et al., 2010), (2) partial correlations between preschool attachment to both the mother and father (PARS; Moss et al., 2015) and middle childhood relational representations to both the mother and father (CARTS; Frewen et al., 2013), and (3) partial correlations between family functioning quality at mealtime (Family Mealtime Q-Sort; Kiser et al., 2010) and middle childhood relational representations to both the mother and father (CARTS; Frewen et al., 2013). Then, using the PROCESS Macro (version 3.5; Hayes, 2018), (4) the final moderation analysis explores family functioning quality at mealtime (Family Mealtime Q-Sort; Kiser et al., 2010) as the moderator between preschool attachment to both the mother and father (PARS; Moss et al., 2015) and their corresponding relational representations in middle childhood to both the mother and father, as well as to the self and to no one (CARTS; Frewen et al., 2013). This moderation examines interaction effects at low (-1 SD), moderate, and high (+1 SD) levels of family functioning quality (Aiken & West, 1991).

Moderations are conducted using the PROCESS Macro (version 3.5; Hayes, 2017) in SPSS. Family functioning quality at mealtime (Family Mealtime Q-Sort; Kiser et al., 2010) is entered as the moderator, while preschool attachment to both the mother and father (PARS; Moss et al., 2015) is entered as the predictor variable, and middle childhood relational representations to the mother, father, self, and no one (CARTS; Frewen et al., 2013) is entered as the outcome variable. For our moderation analyses, although preschool attachments to both the

mother and father are analyzed to middle childhood relational representations of the mother, the father, the self, and no one, it should be noted that relations across parents (i.e., mother-father and father-mother) are not considered. Instead, we consider corresponding relationships (i.e., mother-mother and father-father) from preschool to middle childhood in order to maintain continuity throughout the developmental period, as well as to middle childhood relational representations to the self and to no one. In other words, preschool attachment to the mother is analyzed in relation to middle childhood representations of the mother, the self, and no one, while preschool attachment to the father is analyzed in relation to middle childhood relational representations of the father, the self, and no one. Note that each of these relationships is moderated by family functioning quality at mealtime.

We reiterate the following variables for analysis. Preschool attachments to both the mother and the father are as follows: Secure (B), Avoidant (A), Ambivalent (C), Disorganized (D), Controlling-Caregiving (CC), and Controlling-Punitive (CP). Family functioning quality for each family is assessed using a single overall score of overall family functioning. The CARTS retains four subscales for analysis: Positive, Secure, Negative From (Total), and Negative To (Total), each of which had reports for Mom, Dad, Self, and Not Applicable.

Results

Preliminary Results

Some of the remaining 71 cases contained missing data on our preschool attachment measure (Preschool Attachment Rating Scale; Moss et al., 2015) and our middle childhood relational representations measure (Childhood Attachment & Relational Trauma Screen; Frewen et al., 2013). The percentage of missing ranged from as low as 1.4% to as high as 8.5%. In an effort to retain as many cases as possible and to avoid full listwise deletion, we conducted

Little's MCAR Test to determine the nature of the missing data, and discovered statistically significant results, suggesting that these cases were Not Missing At Random. The statistical requirements for dealing with Missing At Random (MAR) or Missing Completely At Random (MCAR) are more important if utilizing the Monte Carlo (MC) method of dealing with missing data. However, because the percentage of missing is relatively low and would involve the imputation of around 4 to 5 missing data points on average, we utilized an Expectation Maximization (EM) algorithm. The EM algorithm works in two modes: (1) in the estimation step, using maximum likelihood procedures, a regression equation is estimated from complete cases; (2), then, in the maximization step, the algorithm uses this estimated regression equation to generate a dataset that best optimizes the parameters of the model that includes both the original complete dataset and the estimated new dataset. Because EM is an iterative process, the algorithm continues to generate new regression equations and new estimated datasets until convergence is reached or until the change in estimates is only negligible. By default, SPSS conducts 25 iterations. EM may be particularly useful with our data because EM takes into account "missing by design," which is conceptually similar to MCAR, but statistically treated deterministically. Missing data analysis using the Expectation-Maximization algorithm imputed some cases which were above or below possible limits for certain variables, and these particular data points were manually rectified to reflect the upper and lower limits of the variable's scale. The dataset was examined for normality, skewness, and kurtosis to ensure that variables were within normal limits or were reasonable and sensible given the nature of the data. It should be noted that although normal skewness ranges from -1 to 1, and a normal kurtosis value is around 3, variables such as preschool attachment, where a majority of codes suggest secure attachment, are naturally skewed and naturally leptokurtic. As such, these variables were not transformed in

order to retain the integrity of the data. A Durbin-Watson analysis revealed statistic values between 1.748 and 2.430, indicating independence of observations. Collinearity diagnostics were conducted, and all VIF values were below 10, indicating no significant multicollinearity among the main predictors.

Simple bivariate correlations were conducted to identify any potential covariates. Correlations indicated that child age, child gender, annual household income, years of education for both the mother and the father, language, and number of siblings were identified as significant covariates. The covariate of number of siblings, however, is not included in subsequent analyses; adjustment of continuous variables with few levels such as number of siblings is generally not advisable, as it may result in more pronounced measurement errors compared to graded measurement errors (Schechter, 2018, Statalist). Therefore, appropriate covariates of child age, gender, language, annual household income, mother's years of education, and father's years of education are included when necessary.

Primary Results

1. Correlations between preschool attachment behaviors and family functioning quality at mealtime.

Correlations and partial correlations were conducted to explore the relationship between preschool attachment to both the mother and father and family functioning quality at mealtime.

Correlations showed that preschool father-child secure attachments were related to overall family functioning quality ($r = .25, p < .05$). Partial correlations controlling for gender showed that preschool father-child ambivalent attachments were related to overall family functioning (partial $r = -.30, p < .05$). Correlations showed no significant relationships for any preschool mother-child attachments and overall family functioning quality. All correlations are

presented in Table 3. It should be noted that although this preliminary analysis is only concerned with the overall family functioning dimension, correlations to all Family Mealtime Q-Sort dimensions are presented.

Table 3.

Correlations and partial correlations between Preschool Attachment and Family Functioning Quality.

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Overall Fam. Function.
				Mother-Child Preschool Attachment			
Secure	-.09	-.19	-.07	-.08	-.10	.12	-.11
Avoidant[a]	-.10	-.13	.02	.07	-.16	.09	-.07
Ambivalent	.00	-.10	.03	.04	.01	-.02	.00
Disorganized	.19	.11	.02	.12	-.04	-.12	.15
Controlling-Caregiving[a]	.23	.19	-.00	.06	.20	.13	.20
Controlling-Punitive	.10	.19	.10	.17	.16	.02	.14
				Father-Child Preschool Attachment			
Secure	.22	.15	.30*	.04	.17	.08	.25*
Avoidant[b]	-.09	-.10	-.08	-.21	-.07	-.07	-.10
Ambivalent[a]	-.31**	-.22	-.15	.02	-.30*	.07	-.30*
Disorganized[a]	-.08	-.00	-.19	.02	-.01	.08	-.13
Controlling-Caregiving[c]	.14	.09	-.04	-.09	.01	-.05	.10
Controlling-Punitive	-.15	-.09	.07	.05	-.03	.06	-.10

Note: Factor 1=Positive Tone, Factor 2=Clear Plan, Factor 3=Meaningful Conversations, Factor 4=Involvement, Factor 5=Adjustment to Disruptions, Factor 6=Authority, Overall Fam. Function.=Overall Family Functioning. [a]=Controlling for Gender. [b]=Controlling for Mother's Years of Education. [c]=Controlling for Language.
*p<.05. **p<.01.

2. Correlations between preschool attachment behaviors and middle childhood relational representations.

Correlations and partial correlations were conducted to explore the relationship between preschool attachment to both the mother and father (PARS; Moss et al., 2015) and middle childhood relational representations of the mother, the father, the self, and no one along four subscales: Positive, Secure, Negative From (Total), and Negative To (Total) (CARTS: Frewen et al., 2013).

Partial correlations controlling for father's years of education showed that preschool mother-child ambivalent attachments were related to middle childhood negative relational representation from the mother (partial $r = .28, p < .05$). Correlations showed that preschool mother-child disorganized attachments were related to middle childhood negative relational representations to the mother ($r = .31, p < .01$). Correlations showed that preschool mother-child disorganized attachments were related to middle childhood negative relational representations from the mother ($r = .33, p < .01$). Correlations showed that preschool mother-child controlling-caregiving attachments were related to middle childhood positive relational representations of the mother ($r = .24, p < .05$). Correlations for mother-child preschool attachments and middle childhood relational representations of the mother are presented in Table 4.

Table 4.

Correlations and partial correlations between Mother-Child Preschool Attachment and Middle Childhood Relational Representations of the Mother.

	Mother-Child Preschool Attachment					
	B	A[b]	C	D	CC[b]	CP
Positive	-.14	.03	-.12	.13	.24*	.11
Secure	-.11	.05	-.12	.01	.21	.15
Negative To (Total)	-.16	-.09	.17	.31**	.02	.06
Negative From (Total)[a]	-.13	-.01	.28*	.33**	-.03	-.13

Note: B=Secure. A=Avoidant. C=Ambivalent. D=Disorganized. CC=Controlling-Caregiving. CP=Controlling-Punitive. [a]=Controlling for Father's Years of Education. [b]=Controlling for Gender.
*=p<.05. **=p<.01.

Partial correlations controlling for language showed that preschool father-child controlling-caregiving attachments are related to middle childhood positive relational representations of the father ($r = .24, p < .05$) and middle childhood secure relational representations of the father ($r = .31, p < .01$). Correlations show that father-child controlling-punitive attachments are related to middle childhood negative relational representations to the father ($r = .24, p < .05$). Correlations for father-child preschool attachments and middle childhood relational representations of the father are presented in Table 5.

Table 5.

Correlations and partial correlations between Father-Child Preschool Attachment and Middle Childhood Relational Representations of the Father.

	Father-Child Preschool Attachment					
	B	A[a]	C[b]	D[b]	CC[c]	CP
Positive	.03	-.01	-.01	-.10	.24*	.16
Secure	.05	-.08	-.01	-.08	.31**	-.17
Negative To (Total)	-.08	.05	.19	.02	.05	.24*
Negative From (Total)	-.07	-.19	.21	.06	-.14	.02

Note: B=Secure. A=Avoidant. C=Ambivalent. D=Disorganized. CC=Controlling-Caregiving. CP=Controlling-Punitive. [a]=Controlling for Mother's Years of Education. b=Controlling for Gender. c=Controlling for Language.
*=p<.05. **=p<.01.

3. Correlations between family functioning quality at mealtime and middle childhood relational representations.

Correlations and partial correlations were conducted to explore the relationship between family functioning quality at mealtime (Family Mealtime Q-Sort; Kiser et al., 2010) and middle childhood relational representations of the mother, father, self, and no one along four subscales: Positive, Secure, Negative From (Total), and Negative To (Total) (CARTS: Frewen et al., 2013). Correlations showed that overall family functioning quality was related to middle childhood positive relational representations of the father (r =. 32, p < .01). No other correlations or partial correlations for overall family functioning were found to be significant. All correlations for overall family functioning are presented in Table 6.

Table 6.

Correlations and partial correlations between Family Functioning Quality and Middle Childhood Relational Representations.

	Positive			
	N/A	Self	Mother	Father
	-.14	.21	.22	.32**
	Secure			
	N/A[a]	Self	Mother	Father
Overall Family Functioning	-.02	.07	.21	.19
	Negative To (Total)			
	N/A	Self	Mother	Father
	.08	.10	.01	.03
	Negative From (Total)			
	N/A	Self	Mother[b]	Father
	-.10	.03	.03	-.02

Note. [a]=Controlling for Age. [b]=Controlling for Father's Years of Education.
*=p<.05. **=p<.01.

4. Moderations of family functioning quality at mealtime on the relationship between preschool attachment and middle childhood relational representations.

Moderation analyses were conducted to explore the moderating effects of family functioning quality at mealtime (Family Mealtime Q-Sort; Kiser et al., 2010) on the relationship between preschool attachment to both the mother and father (PARS; Moss et al., 2015) and middle childhood relational representations of the mother, father, self, and no one along four subscales: Positive, Secure, Negative From (Total), and Negative To (Total) (CARTS; Frewen et al., 2013). However, only moderations with corresponding preschool attachment and middle childhood relational representations relationships between mother-to-mother or father-to-father are considered. Significant moderation models were explored at low (-1 SD), moderate (Mean), and high (+1 SD) interaction effects when applicable. It should be noted that moderation analyses were conducted for father-child relationships, but no significant moderations were discovered. Therefore, only significant moderations for mother-child relationships are presented.

Moderations controlling for father's years of education showed that overall family functioning quality significantly moderated the association between preschool mother-child ambivalent attachment and middle childhood negative relational representations from the mother. The overall model was significant ($F(3,67) = 4.13, p < .01$) and indicated that approximately 15.6% ($R^2 = .16$) of the variance was accounted for by all three predictors with an effect size f^2 of 17.09. The interaction between preschool mother-child ambivalent attachment and family functioning quality was significant ($b = .14$, se = .06, $t(67) = 2.35, p = .02$). This moderating effect is presented in Table 7 and shown in Figure 1. Conditional effects showed this interaction to be significant at medium ($b = .05$, se = .02, $t(67) = 2.59, p = .01$) and high ($b = .11$, se = .03, $t(67) = 3.47, p < .01$) levels of family functioning quality.

Table 7.

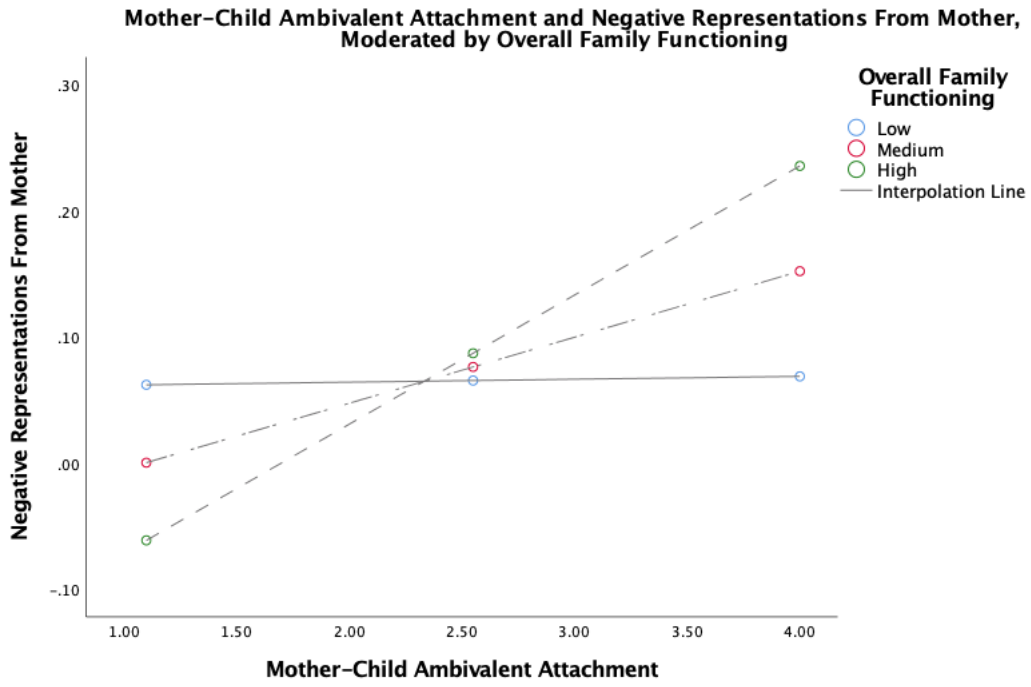
Relationship between Mother-Child Ambivalent Attachment and Negative Relational Representations From the Mother, Moderated by Overall Family Functioning.

Model	*b*	se	t	p	LLCI	ULCI
Constant	.49*	.23	2.18	.03	.04	.94
Mother-Child Ambivalent Attachment	-.01	.04	-.39	.70	-.09	.06
Overall Family Functioning	-.31	.17	-1.86	.07	-.64	.02
Interaction[a]	.13*	.06	2.27	.03	.02	.25
YOE-Father	-.02*	.01	-2.00	.05	-.05	.00

Note: [a]Interaction between Mother-Child Ambivalent Attachment and Overall Family Functioning. YOE-Father=Years of Education – Father.
*=p<.05.

Figure 1.

Relationship between Mother-Child Ambivalent Attachment and Negative Relational Representations From the Mother, Moderated by Overall Family Functioning.



Moderations showed that overall family functioning quality significantly moderated the association between preschool mother-child disorganized attachment and middle childhood negative relational representations to the mother. The overall model was significant ($F(3,67) = 4.73, p < .01$) and indicated that approximately 17.5% ($R^2 = .17$) of the variance was accounted for by all three predictors with an effect size f^2 of 22.45. The interaction between preschool mother-child disorganized attachment and family functioning quality was significant ($b = .20$, se $= .08$, $t(67) = 2.52$, $p = .01$). This moderating effect is presented in Table 8 and shown in Figure 2. Conditional effects showed this interaction to be significant at high ($b = .10$, se $= .03$, $t(67) = 3.76$, $p < .01$) levels of family functioning quality.

Table 8.

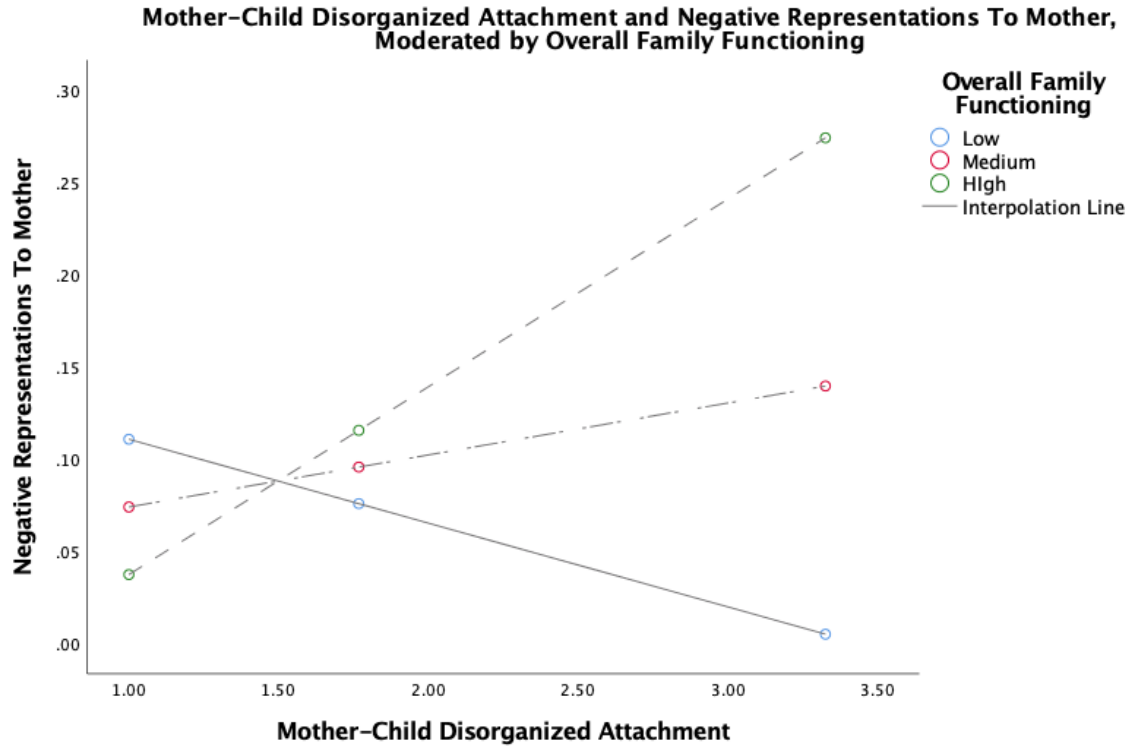
Relationship between Mother-Child Disorganized Attachment and Negative Relational Representations To the Mother, Moderated by Overall Family Functioning.

Model	*b*	se	t	p	LLCI	ULCI
Constant	.19*	.09	2.12	.04	.01	.37
Mother-Child Disorganized Attachment	-.07	.05	-1.27	.21	-.18	.04
Overall Family Functioning	-.29*	.14	-2.15	.04	-.56	-.02
Interaction[a]	.20*	.08	2.52	.01	.04	.35

Note: [a]Interaction between Mother-Child Disorganized Attachment and Overall Family Functioning.
*=p<.05.

Figure 2.

Relationship between Mother-Child Disorganized Attachment and Negative Relational Representations To the Mother, Moderated by Overall Family Functioning.



Moderations controlling for father's years of education showed that overall family functioning quality significantly moderated the association between preschool mother-child disorganized attachment and middle childhood negative relational representations from the mother. The overall model was significant ($F(3,67) = 6.15, p < .01$) and indicated that approximately 21.6% ($R^2 = .22$) of the variance was accounted for by all three predictors with an effect size f^2 of 37.83. The interaction between preschool mother-child disorganized attachment and family functioning quality was significant ($b = .20$, se = .07, $t(67) = 2.73, p < .01$). This moderating effect is presented in Table 9 and shown in Figure 3. Conditional effects showed this interaction to be significant at high ($b = .11$, se = .03, $t(67) = 4.26, p < .01$) levels of family functioning quality.

Table 9.

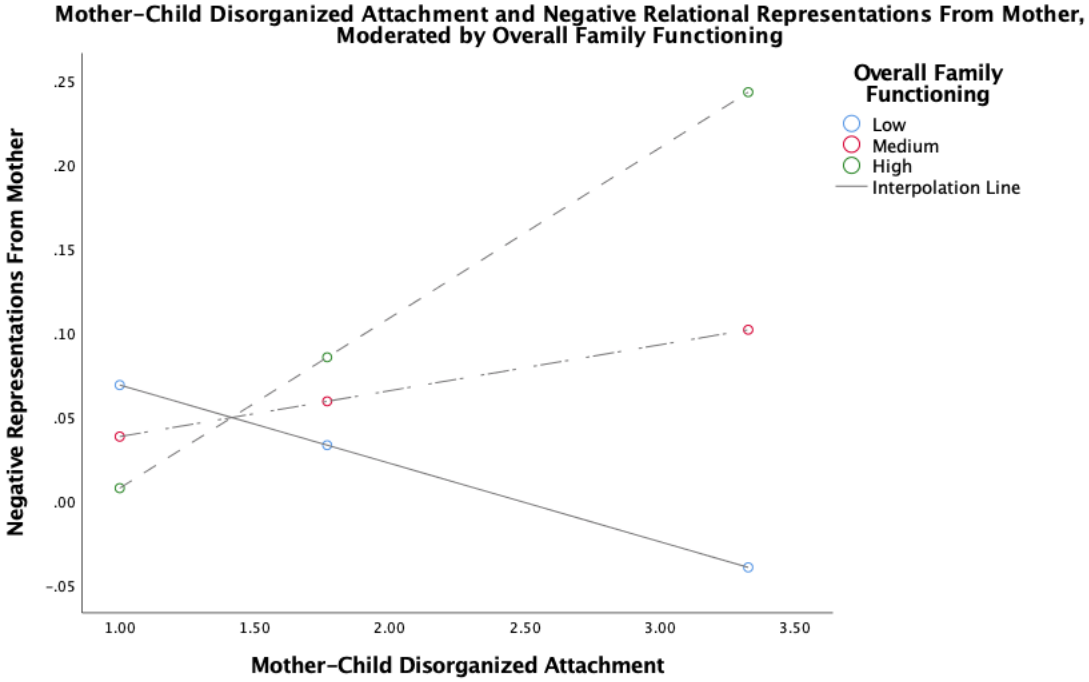
Relationship between Mother-Child Disorganized Attachment and Negative Relational Representations From the Mother, Moderated by Overall Family Functioning.

Model	*b*	se	t	p	LLCI	ULCI
Constant	.51	.22	2.33	.02	.07	.94
Mother-Child Disorganized Attachment	-.07	.05	-1.42	.16	-.17	.03
Overall Family Functioning	-.28*	.12	-2.23	.03	-.53	-.03
Interaction[a]	.20**	.07	2.77	.01	.05	.34
YOE-Father	-.02	.01	-1.86	.07	-.05	.00

Note: [a]Interaction between Mother-Child Disorganized Attachment and Overall Family Functioning. YOE-Father=Years of Education – Father.
*=p<.05. **=p<.01.

Figure 3.

Relationship between Mother-Child Disorganized Attachment and Negative Relational Representations From the Mother, Moderated by Overall Family Functioning.



Moderations showed that overall family functioning quality significantly moderated the relationship between preschool mother-child caregiving attachment and middle childhood positive relational representations of the mother. The overall model was significant ($F(3,67) = 3.69, p < .05$) and indicated that approximately 14.2% ($R^2 = .14$) of the variance was accounted for by all three predictors with an effect size f^2 of 13.62. The interaction between preschool mother-child caregiving attachment and family functioning quality was significant ($b = -.08$, se = .04, $t(67) = -2.02, p = .05$). This moderating effect is presented in Table 10 and shown in Figure 4. Conditional effects showed this interaction to be significant at low ($b = .06$, se = .02, $t(67) = 2.67, p = .01$) and medium ($b = .03$, se = .01, $t(67) = 2.18, p = .03$) levels of family functioning quality.

Table 10.

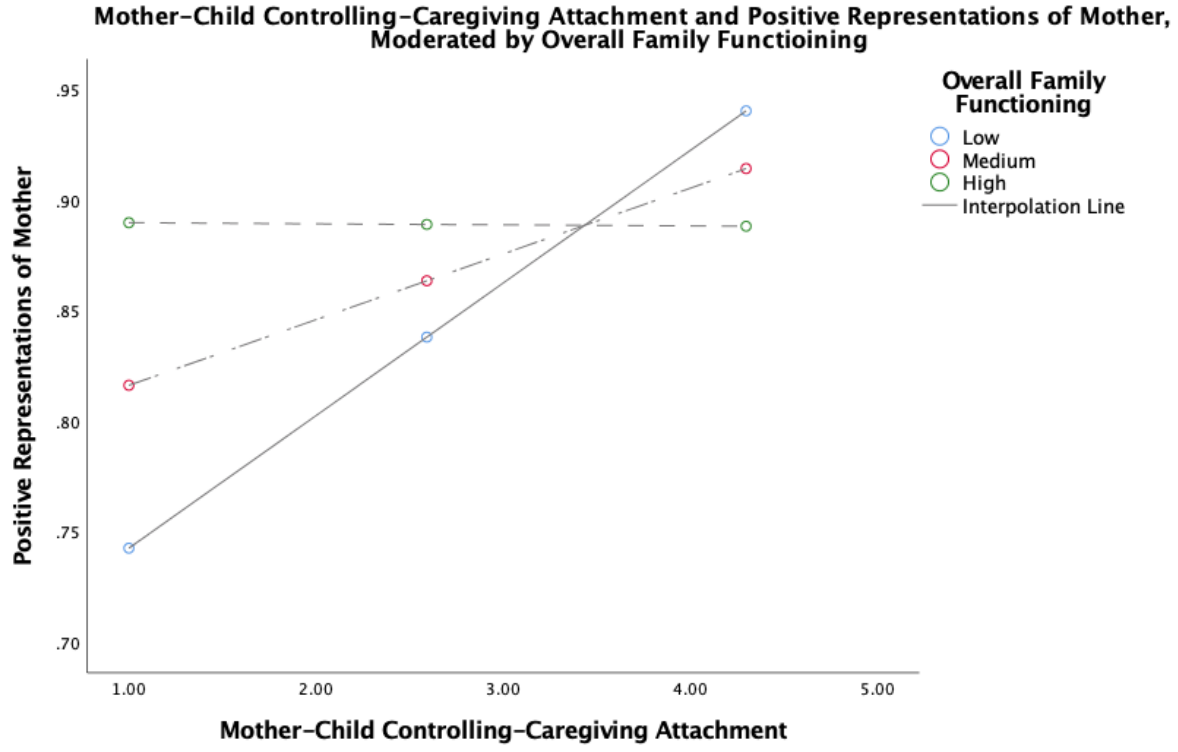
Relationship between Mother-Child Controlling-Caregiving Attachment and Positive Relational Representations of the Mother, Moderated by Overall Family Functioning.

Model	*b*	se	t	p	LLCI	ULCI
Constant	.65***	.07	9.68	.00	.52	.79
Mother-Child Controlling-Caregiving Attachment	.07*	.03	2.63	.01	.02	.12
Overall Family Functioning	.28*	.11	2.59	.01	.06	.49
Interaction[a]	-.08*	.04	-2.02	.05	-.16	-.00

Note: [a]Interaction between Mother-Child Controlling-Caregiving Attachment and Overall Family Functioning.
*=p<.05. **=p<.01.

Figure 4.

Relationship between Mother-Child Controlling-Caregiving Attachment and Positive Relational Representations of the Mother, Moderated by Overall Family Functioning.



Discussion

Our findings suggest that the quality of the family system moderates the relationship between mother-child ambivalent, disorganized, and controlling-caregiving preschool attachments and both negative and positive middle childhood relational representations. The following discussion will first explore this study's correlational findings, then explore this study's moderating findings.

Correlations between preschool attachment behaviors and family functioning quality at mealtime

Our first preliminary analysis reveals that father-child secure and ambivalent attachments are positively and negatively correlated to overall family functioning, respectively. Together, these results suggest that the quality of the father-child attachment relationship in preschool is a significant indicator of family functioning later in life. Specifically, a secure attachment in preschool is one that involves developing goal-corrected interactions with attachment figures and is therefore typically characterized by emotional availability, coordination, and trust. Compared to infancy, whose focus is largely the physical proximity of the attachment figure, the attachment system in the preschool years is predicated more upon the emotional availability of the attachment figure, even in absence, as well as the attachment figure's responsiveness and attunement to the child's wants and needs. The general trust that is felt by the child with a secure attachment to the father may effectively allow for certain family functions to function in a more optimal manner. For example, a child who is secure in their relationship with their father is more likely to be receptive to the father's interactions; similarly, the secure father may know that his interaction will be better received if he knows his child can trust him and knows the extent to and appropriateness with which he interacts. Conversely, an ambivalent attachment in preschool is

one that is typically characterized by inappropriate or inconsistent responses to the child's wants and needs. As a result, children with ambivalent attachments typically exhibit more anxiety and distress, leading to resistance and conflict, and are less likely to be comforted by the attachment figure. In the preschool years, an ambivalent child tends to shift between overdependence and resistance (i.e., from passive resistance to overt conflict) to the attachment figure. Here, our results suggest that the precarious and often conflictual nature of this relationship, especially with the father, lends to worse family functioning. It may be, then, that the child's resistance with the father is amplified in the family context. Inconsistency in the father-child relationship may very well seep into the family context and suggest that the child's anxiety and lack of trust in the father does not allow certain family functions to operate as well as they should. For example, a key component of family functioning at mealtime is engaging in meaningful and constructive conversations, which typically requires a degree of openness and vulnerability; a lack of trust in the attachment figure is likely to make this function difficult to engage in effectively. An inconsistent father may attempt to engage in meaningful conversations but do so at inappropriate times or even to an inappropriate degree (i.e., being overly intrusive, or contrarily, not being able to develop past surface-level conversation).

Notably, our results did not reveal any significant relationships between father-child avoidant and disorganized attachments and family functioning quality dimensions. The strategy of a child with an avoidant attachment is to downregulate their own attachment needs and behave in a manner to suggest that nothing is wrong in an effort to avoid conflict or distress with the parent; this is driven by an understanding that the parent, despite their efforts, is unreliable or ineffective in managing the child's attachment needs or in providing comfort and security. Given opportunities to reunite or connect, as is the case with the separation-reunion procedure or the

family meal, respectively, the child remains a relatively distant agent in the dynamic; their avoidant attachment strategy with the father may extend to the family system and they may strategically not involve themselves in the family mealtime dynamic. Thus, a child with an avoidant strategy may not be particularly great at the relational functions of the family meal, but they also may not be particularly bad or disruptive, either. Children with disorganized attachments exhibit behaviors that are incoherent or rather contradictory to the development of an attachment strategy, and indicative of fear of the parent. Indeed, disorganized children characteristically fail to develop a coherent attachment strategy in response to a parent who – rather than be a source of comfort or security – is instead a source of significant fear or distress. Thus, a child with a disorganized strategy may behave out of fear and exhibit excessive compliance, and likewise may not be particularly overly involved or notably disruptive to the family meal. The Family Mealtime Q-Sort is not necessarily designed to evaluate such behaviors, and therefore, may not demonstrate any particularly characteristic quality in family functioning, unless otherwise made apparent, evident, or indeed picked on, by another family member (e.g., "Why aren't you talking?") – in which case, the child's lack of involvement, submissiveness, or even fear becomes part of the family dynamic. In these instances, then, family functioning may neither be exceptional or poor, but rather, fall somewhere in the middle. As a result, the child's lack of specific, identifiable, or salient behaviors that neither benefit nor hinder the functional quality of the family meal may simply not be captured by our assessments and may serve to explain the absence of any significant associations in this regard.

Furthermore, correlational analyses failed to find significant correlations for mother-child attachments. It appears that these results suggest the father-child relationship as perhaps more potent in explaining family functioning quality than the mother-child relationship. Early

attachment research suggests a "maternal monotropy" hypothesis – that only one person, usually the mother, is an important attachment figure, whereas the other caretakers are subsidiary attachment figures with marginal influence on children's development" (Dagan & Sagi-Schwartz, 2018, p. 115). However, both theory and research suggest that the maternal monotropic perspective is no longer the dominant framework in the attachment literature. More recent empirical literature implicates father-child attachment in the development of childhood internalizing symptoms (Deneault et al., 2021) and externalizing symptoms (Dagan et al., 2021), working in parallel to its mother-child counterparts. Now, researchers have come to propose and adopt a more complex system of attachment that includes the father in an integrative and interrelated attachment network and does not prioritize one attachment figure over the other.

Not only do our results appear to be in contrast to a maternal monotropy hypothesis, but also to an updated integrative attachment network perspective. One might propose that the mother is unimportant to the family meal, or even that fathers are more important than mothers in the family meal. However, these interpretations lack nuance and fail to consider the context of analysis. These results may simply be grounded in the nature of the family meal setting with which we explore family functioning. Just as mothers and fathers share complementary roles in the function of coparenting (e.g., Bureau et al., 2020), so too might these roles be further engendered by the family mealtime environment. The history of the family meal has deep roots in prescribed gender roles, and although we have made considerable progress since, its effects may very well persist. Contextualizing these relationships in the family mealtime is to reflect these gender differences in a family ritual whose functions may remain gendered and whose roles remain prescribed (Cicciolla & Luthar, 2019). Because our study focuses on the relational aspects of parent-child attachment and family functioning in the family meal, our results may

have failed to consider that the meal is an event that must be planned and conducted, and not simply participated in. Mothers, therefore, may focus more on the logistics of the family meal – preparing the table, serving food, ensuring hands are clean – and may be less involved or less salient in the relational functions of the family meal. The influence of mothers in the family meal, then, is not necessarily in the interactional quality of family members, but rather in the successful completion of the family meal as an event. This role may be so strongly established and ingrained into the fabric of family life that it is expected of the mother – even by the mother herself. Without even being aware of it, family members – including children – may rely on the mother for this consistency. These findings are particularly interesting, given recent research showing that among mealtime conversations with 2-year-old children, mothers – in comparison to fathers and even the child – talked the most and were more likely to initiate conversational themes (Bohn et al., 2024). The issue of topical success in conversational contexts, however, remains unsolved, as Bohn & colleagues (2024) do not necessarily elaborate on whether or not these initiations are accepted by the family system – only that mothers initiate them more often than fathers and children. Indeed, very early research has shown that among Jewish American families, "women raised almost twice as many topics as men, but whereas topics raised by men were almost always accepted and elaborated, almost half the women's topics failed" (Fishman, 1978; in Blum-Kulka, 1997, p. 83). Thus, although mothers may talk and initiate more, these relational functions may often be set aside to fulfill the responsibility of carrying out the necessary logistic functions of the mealtime event. Therefore, the logistic functions of the family meal are simply not fully captured by the Family Mealtime Q-Sort (Kiser et al., 2010), whose focus instead is in assessing the relational dynamics of family functioning. This important

function is not properly accounted for by our measure and may serve to explain the lack of significant correlations between mother-child attachment and family functioning quality.

The father, on the other hand, is not necessarily bound by the same expectations. While the role of mothers in the family meal may be more constant, expected, and even taken for granted, the role of fathers is at liberty to be much more varied; the father's "intensive involvement in the day-to-day aspects of parenting is still 'elective'" (Schoppe-Sullivan et al., 2006, p. 379). The mother's role may very well not even be acknowledged or addressed by the family, and therefore, may be outside of the relational quality of family interactions. The father, on the other hand, who does not have the same responsibility as the mother, is free to be as involved or uninvolved as he wishes. This reduced obligation means that the father's role in the family meal is largely up to his own discretion. Indeed, a model proposed by Cabrera and colleagues (2000) suggests that the role of fathers is less prescribed by societal standards, and therefore may be more integrated with external or contextual factors. Empirical work even highlights father-child attachment as being associated with certain aspects of family life such as paternal stress (e.g., Bureau et al., 2017). Anecdotally, our own observations of videotaped family mealtimes showed that while mothers predominantly dictated the flow of the mealtime event by getting up and down to serve food, ensuring proper etiquette and rule-following, opening conversation, and keeping the family on track, fathers were more likely to stay seated at the table with children, often took charge of the conversation, and were more likely to elaborate on conversational topics, even if they were tangential. Therefore, fathers may have a greater influence on the quality of the interpersonal relationship that are inherent to the general affective tone and emotional tenor of the family meal. Our results, therefore, suggest that the relational functions of the overall family dynamic at mealtime is closely related to father-child attachment.

Correlations between preschool attachment behaviors and middle childhood relational representations

Our second set of main analyses reveals that both mother-child and father-child attachments, especially insecure-organized and insecure-disorganized dimensions, are correlated to positive and negative relational representations.

Insecure-Organized

Specific analyses show that mother-child and father-child ambivalent attachments are associated with more negative representations from the mother and father, respectively. As previously mentioned, ambivalent attachments are characterized by the child's behavioral shifting between overdependence and resistance in response to an inconsistent and unreliable – and therefore, untrustworthy – attachment figure. In an effort to stabilize an unreliable attachment system, the child's own behaviors reflect a mental state that is figuratively torn between wanting the parent's attention and resisting their advances. Indeed, our results align with previous literature, as research has found ambivalent preschool attachments to be related to less coherent representational narratives in a doll-play assessment (Moss et al., 2009). Our results, then, suggest some simple concordance between early childhood attachment and later childhood incoherent representations.

Insecure-Disorganized

Additionally, specific analyses show that mother-child disorganized attachment is associated with more negative representations both to and from the mother. Disorganized attachments are notably characterized by frightening or distressing elements in the relationship between the parent (i.e., the mother) and the child. Early work on disorganized dimensions shows that disorganized/controlling attachment in preschool-aged separation-reunion tasks are

able to reliably predict concurrent frightened doll-play narratives (Solomon et al., 1995). Similarly, research also shows a relationship between disorganized attachments among 6-year-old children and violent or chaotic narratives consistent with frightened representations in a doll-play procedure two years later (Bureau & Moss, 2010). These findings echo related research that shows that in comparison to secure classifications, disorganized-controlling classifications were significantly associated with themes of conflict, and notably not with themes of discipline or affection (Bureau et al., 2006). Behaviorally, disorganized children seem to express freezing or contradictory behaviors in response to the coherent understanding that the parent is a frightening and conflictual figure. Their representations are not confused or unsure; indeed, children with disorganized-controlling attachment classifications were not found to be more or less coherent than their secure or insecure-organized counterparts (Bureau et al., 2006). Rather, their fear drives their behavior. Our results, therefore, are in line with this understanding; for the disorganized child, the mother is the figure from whom fear is sourced and to whom fear is attributed. However, it should be noted that we do not suggest that negative relational representations are extensions of "frightened" attachment representations; rather, the items that comprise negative relational representations tap into dimensions of fear, hostility, rejection, and anger. From a broad practical standpoint, these dimensions certainly allow for the assessment of these affectations, but in no way are an assessment of frightened attachment representations often found in disorganized attachments. As such, we clarify that due to the nature of the CARTS assessment, our negative relational representations do not specify fear or hostility, but rather identify negativity as a broader concept encompassing the child's representations of fear or hostility. Therefore, this interpretation may be further specified in future research.

Our results also show that mother-child and father-child controlling-caregiving attachments are associated with more positive representations of the mother and more positive and secure representations of the father, respectively. Although it may seem counterintuitive that an attachment subtype stemming from disorganization should relate to better representations, this result does indeed align with our theoretical understanding of controlling-caregiving expressions. The controlling-caregiving dimension is typically marked by a role-reversal relationship in which the child takes on the caregiving role and exhibits overly positive and overly cheerful behaviors designed and intended to protect a parent that is perceived as helpless or unable to protect and support the child (Moss et al., 2011; Bureau et al. 2018). Because parent helplessness is not equivalent to hostility or indeed even negativity, the dimensionality of the CARTS may not lend to the detection of negative representations; instead, the child may still have a perception of the parent being fragile and unable to parent efficiently, they may just believe that the parent is someone who requires their protection. Thus, they may simply not be inclined to portray their parent negatively or even neutrally; a caregiving child may be more inclined to portray the parent as a good person namely in an effort to care for and protect the parent's feelings and ensure a positive affect is maintained, no matter their abilities. Research has previously discovered a significant association between preschool-aged caregiving behaviors and parents feeling less anxiety and stress, suggesting that the role-reversal aspect of the caregiving relationship may function to regulate parent emotional states (Moss et al., 2011). Mothers of caregiving children actually "reported feeling increasingly better about their relationship with their children and described their children as more adaptable" (Moss et al., 2011, p. 63). Our results, then, may suggest that the child may actually be such an effective caregiver to the mother and father that the mother-child and father-child relationships, respectively, are represented positively and

securely; the parents effectively benefit from the child's caregiving behaviors which therefore benefits the overall relationship. For example, the child may be happy to take care of the father while the father may be happy to be taken care of.

However, the beneficial aspects of this relationship may be unsustainable and ultimately a superficial or short-lived phenomenon. The mechanism of caregiving is dubbed a "pseudo-mechanism," as it fundamentally fails to address the underlying cognitive models of the caregiving attachment system (Moss et al., 2011). In other words, by definition, controlling-caregiving is still an inappropriate and insufficient parent-child dynamic, and both the parent and the child are limited in their respective roles as a caregiver and as a child. Due to the role-reversal dynamic, the child would be expected to emotionally comfort the parent even though they themselves are not yet emotionally mature. In fact, it may be the responsibility of the parent to coach, demonstrate, and model emotional maturity for the child (Lawrence & Plisco, 2017). Although it may look and feel beneficial to both parties in the short-term, the long-term sustenance of a controlling-caregiving relationship is not likely. Nevertheless, the relatively low incidence of disorganized and controlling classifications – especially among father-child dyads with relatively limited data – proves it difficult to conduct a longitudinal subgroup analysis.

Our analyses also show that father-child controlling-punitive attachments are associated with more negative representations to the father. Children with controlling-punitive attachments typically "direct behaviors toward the caregiver that may include harsh commands, verbal threats, and occasional physical aggression" (Moss et al., 2011, p. 60). Conceptually, the controlling-punitive dimension is a collapse of the child's strategy to deal with activation of the attachment system, but one that specifically allows for feelings of frustration and aggression to be attributed to the caregiver (Bureau et al., 2009). In other words, a child with a controlling-

punitive attachment is unhappy with their inability to form a coherent attachment bond with the father and may inappropriately direct this unhappiness towards him. Indeed, our result is consistent with this understanding, as negativity is represented towards the father and not from the father. Indeed, research has shown that the father-child controlling-punitive attachment relationship may be marked by lower paternal sensitivity (Deneault et al., 2020); it may be the father's inability to effectively serve as an attachment figure that drives the child to direct his attention and effort in such a controlling manner. Due to his low sensitivity in the parent-child interaction, the child perceives the father to be an ineffective caregiver, and consequently exhibits punitive behaviors that essentially demand him to do so. On the other hand, lower paternal sensitivity may conversely be perceived as negativity *from* the father, which may be theoretically expected and empirically contradicts our results. It is particularly interesting that our results specifically delineate negativity *to* the father, despite the parent-child relationship ultimately being a two-way street. It seems that mutual negativity may not be a characteristic of father-child controlling-punitive relationships, and further research would be required to fully understand the apparent unidirectionality of this association.

Ultimately, research on father-child controlling-punitive attachment is largely limited to its low incidence, and further exploration is needed to fully understand why father-child controlling-punitive attachment seems to be represented differently from mother-child controlling-punitive attachment. Indeed, taken in conjunction, it is interesting that when the mother is perceived as incapable, the child does not turn to the father for comfort and security and instead turns to themselves to address their own needs. Meanwhile, the father is simply represented negatively. It seems that both contextual and individual factors in the father-child

and mother-child controlling-punitive relationships remain important avenues for further research, and our results provide preliminary evidence for their differences.

Correlations between family functioning quality at mealtime and middle childhood relational representations

Our third set of analyses reveals that more optimal family functioning is associated with more positive representations of the father. It is possible that the quality of the overall family mealtime environment may be carried over into the father-child relationship; however, this does not explain the lack of a congruent association with the child's positive representations of the mother. Nevertheless, as previously mentioned, the role of fathers in the family is less prescribed and more susceptible to the influence of contextual factors (Cabrera et al., 2000). Indeed, this is illustrated in our first analysis, where overall family functioning is related to father-child secure attachment (see Primary Analysis 1). Therefore, a similar phenomenon may occur here. The positivity of the family dynamic may figuratively "spill over" into middle childhood relational representations. The child may represent the father as more secure simply because the father is seen as a comforting and reliable figure in the dyadic and family contexts.

Moderations of family functioning quality at mealtime on the relationship between preschool attachment and middle childhood relational representations

Our moderation analyses suggest that children with ambivalent mother-child attachments are more likely to have negative representations from the mother when family functioning is moderate or high in quality. Furthermore, moderations also suggest that children with a disorganized mother-child attachment are more likely to have negative representations both to and from the mother when family functioning is high in quality. It should be noted that our initial hypotheses propose that more optimal family functioning would mitigate or effectively buffer the

effects of non-secure attachments; therefore, these results do not align with our hypothesis and previous literature (e.g., Brown et al., 2019; Dubois-Comtois et al., 2008).

In contrast to our previous results which showed no significant associations between mother-child attachment and family functioning quality, these moderation results seem to indicate a specific interaction effect in which more optimal family functioning significantly strengthens or highlights negative relationships. The family meal functions as the contextualizing factor that allows the child to compare their relationship with their mother against the overall relational quality of all other family members. Only in an optimal family meal may the child come to understand that their ambivalent or disorganized attachment to the mother is indeed negative and that this relationship is isolated only to their relationship with her and not other family members. To embed a mother-child relationship marked with anger, dependency, or fear in a family system that functions well is to essentially "stick out like a sore thumb." In this context, the specific ambivalence or disorganization of the mother-child relationship is effectively highlighted as non-normal, and the child may thus report increased negative representations with the mother. However, in family systems that do not function well and are overall negative, the child's specific negative relationship with the mother may be perceived as relatively normal in the context of other negative relationships; it does not necessarily "stand out," and therefore, the child may be less inclined to represent the mother-child relationship with more or less negativity than others. The contextual quality of the family system may essentially provide the contrasting picture from which the quality of the parent-child relationship is evaluated against. However, for father-child attachments that have already shown significant relationships to family functioning quality, this contrasting effect may be less pronounced. Just as an optimal family system may provide the necessary contrast to reveal a negative mother-child

relationship, the quality of the family system may also obscure the quality of the parent-child relationship if both the relationship and the context within which it is embedded are similar in quality.

Lastly, moderations show that children with controlling-caregiving mother-child attachments are more likely to have positive representations of the mother when family functioning is low or moderate in quality. Although it may seem counterintuitive that low quality family functioning should moderate a positive representation, this finding does indeed align with theoretical understanding. According to our preliminary findings, controlling-caregiving mother-child attachments are indeed directly correlated to positive representations of the mother; the child exhibits overly positive behavior in an attempt to express approval or to appease a parent's general inconsistency, regardless of her behaviors (Main & Cassidy, 1988). This moderation suggests that low quality family mealtimes provide the right context for the caregiving dynamic to be cultivated. It may be, then, that the child's perception of the mother as a helpless and inconsistent figure extends into the family system and the child may take care of her in the family system more than they usually would. Furthermore, that this occurs at low levels of family functioning might suggest that the mother's incompetency is not merely perceived by the child but instead a lived reality; she is not able to conduct an optimal family meal, and the child feels like they must take over in order to keep things going. If the mother is not offering optimal parenting and the family meal is poor in quality, the child may become overly positive in an effort to protect her and keep her engaged in the family meal. It may also be used to maintain movement and flow in the family meal when the mother is incapable of doing so. Therefore, the context of lower quality family functioning may strengthen the relational dynamics already set in place by the controlling-caregiving relationship – highly relational caregiving behaviors are

contextualized and perhaps made more salient in an environment with low relational quality. However, it is important to acknowledge that positive representations seem to be consistently high among all levels of family functioning quality (see Figure 4), suggesting that the nuance may very well lie with the quality of the controlling-caregiving dynamic. In other words, at any level of the controlling-caregiving dimension, optimal family dynamics will be related to positive representations, indicating a possible independence of effects. Therefore, controlling-caregiving attachment may have a different meaning in high-, medium- and low-quality family functioning settings.

Limitations

Our results should be interpreted with caution as our sample is not representative of all families. Naturally, because of the population it was recruited from, the demographic characteristics of our sample reveal a majority of families reporting a before-tax annual household income of at least $75,000. In the year that this demographic information was collected, the comparable median before-tax annual household income in Canada for couple families with or without children was reported at $81,980 (Statistics Canada, 2018). Amongst the largest cities in Canada, the Ottawa-Gatineau geographic region has been reported as having the highest median annual household incomes due to the high prevalence of federal workers and high levels of educational attainment, and only the second-lowest measure of income-inequality as calculated by the Gini coefficient (Statistics Canada, 2024; The Conference Board of Canada, 2016). Thus, although our sample does generally represent the Ottawa-Gatineau region and are expected to be wealthy, they are not representative of families across in other provinces across Canada.

Furthermore, our sample was comprised of a majority of White/Caucasian mothers and fathers. Again, although this is representative of the ethnocultural profile in the Ottawa-Gatineau region at the time of assessment (Statistics Canada, 2017), this falls short in representing the increasing diversity of Canada. For example, according to Statistics Canada, the proportion of mixed unions – referring to couples in which one partner belongs to a visible minority group and the other does not – in the Ottawa-Gatineau region was at about 6.3% in 2011 (Statistics Canada, 2011). As will be discussed in the General Discussion, culture may impart a particularly strong influence in the way families eat and communicate with each other. Especially in mixed union households, where partners may each carry their own, possibly incompatible cultural norms, the practice of commensality may look very different from our observations. Additionally, our criteria focused only on intact heterosexual families. Although heterosexual families still make up a majority of families today, it is prudent to also acknowledge the varied range of family types that engage in childrearing. Our study revealed distinct complementary roles for mothers and fathers specifically in the mealtime context, but fail to consider how these roles might be expressed – or not expressed – in families where the mother-father-children family composition is not the norm.

In the same vein, our sample size is relatively small and limited our statistical analyses. Our relatively small sample size of 71 families suggests that our study had limited power and therefore is more likely to face Type II Errors. A structural equation model with more statistical power may have been a more appropriate option; however, SEM requires a significantly larger sample size that was not available in this thesis. The benefit of structural equation modeling in this study is that it would have allowed for exploration of the shared variance between mother-

child and father-child relationships in a more ecologically valid manner, as well as provided a more robust analysis of attachment dimensions.

Furthermore, our use of the Childhood Attachment and Relational Trauma Screen (CARTS; Frewen et al., 2013) as a measure of relational representations in middle childhood should ultimately be interpreted with caution. The CARTS was developed under the premise of relational trauma – that childhood trauma is most likely perpetrated by close family members. In order to assess the degree or severity of trauma, which itself is assessed by its own dimensions, researchers also developed dimensions of general relational quality. In other words, this generational relational quality served as a baseline metric in relation to trauma metrics. Therefore, for our own purposes, we used only those dimensions whose items assessed general relational representations. All literature to date has utilized the CARTS in its entirety specifically to assess trauma among clinical populations (Schnyder et al., 2017; Simonelli et al., 2017; Brown, 2014; Olff, 2015) and therefore requires further study to understand its use in non-clinical populations.

Additionally, previously utilized measures of representational quality, such as the Doll-Play Assessment (Bretherton et al., 1990), rely specifically on the child's verbal narrative abilities and projection onto the family provided in the paradigm. The CARTS was chosen in this study as an evaluation of relational representations in middle childhood namely for allowing a more generalized assessment of the child's family figures without the imposition of narrative or family structure. Therefore, this is the first study that demonstrates the usefulness of the CARTS for general use among a non-clinical sample.

Furthermore, our use of the CARTS in this study was to explore middle childhood relational representations, but only of mother-child and father-child relationships. We did not,

however, run analyses on relational representations that were reported for "Not Applicable" or "Self" attributions, or even consider any other relationships the child may have reported to be part of their family system, such as a grandparent. Therefore, the correspondence of mother-mother and father-father analyses were conducted to retain longitudinal continuity of the child's relationships. However, it does not preclude the influence of the child's other relationships that may be instrumental in shaping and defining the quality of the child's overall development. Indeed, other relational figures help to make up the unique emotional tenor of the family system, and therefore should not be discounted in subsequent family systems research.

Conclusion

This study revealed that the moderating effects of family functioning quality were most impactful when preschool attachment to the mother and father were ambivalent or disorganized and middle childhood relational representations were negatively attributed. In other words, the manner in which the child relates to their parent, especially when this representation is negative, is indeed partly informed by the functional quality of the family system. This study also provides empirical support for the treatment of the family system as a distinct unit of measurement. Rather than a sum of its own subsystems, the family system is unique and irreducible, and handling it as such may provide further insight into the child's relationships. Here, the family system is an important contextual factor in understanding child relationship development from the preschool years to middle childhood.

Family functioning quality as a predictor of developmental outcomes in middle childhood

Michael Yee, Jean-François Bureau

Abstract

Relationships to the mother and father occur within a family context that cannot be estimated by individual parent-child dynamics (Bowen, 1974). Although the interaction between child-mother attachment and child-father attachment have been linked to internalizing and externalizing symptoms in child development (e.g., Dagan et al., 2021), research has yet to explore the influence of the family system on childhood socioemotional and behavioral development. Therefore, this study investigates the contributive effects of the functional quality of the family system on childhood socioemotional and behavioral adaptation over and above parent-child relationships. Participants included 71 children (M_{age} = 100.35 months, SD = 11.37, 38 girls) and their parents. Parent-child relationships were observed and coded for dyadic synchrony using the Laughing Task (Bureau et al., 2014). Family functioning quality was assessed using videotaped family mealtimes and behaviorally coded using the Family Mealtime Q-Sort (Kiser et al., 2010). Maternal and paternal reports of child behavior problems were assessed using the Strengths & Difficulties Questionnaire (SDQ; Goodman, 1997). Psychological problems were assessed with child self-report on the Dominic-Interactive (Valla et al., 2000). Regression analyses suggest less behavior problems, particularly conduct symptoms, are associated to more optimal family systems marked by more meaningful conversations and better adjustment to disruptions, over and above measures of parent-child dyadic synchrony. These findings underscore the importance of addressing childhood socioemotional and behavior problems in the context of family-level assessment.

Family functioning quality as a predictor of developmental outcomes in middle childhood

Introduction

The conceptualization of Bowlby's attachment theory (Bowlby, 1969/1982, 1973) has long provided the foundation for understanding that the quality of the child's relationships to one or both attachment figures significantly influences and even predicts the development of socioemotional and behavioral outcomes. Much of the extant literature suggests that more secure parent-child attachment relationships are linked to better overall adaptation, while more insecure and disorganized parent-child attachment relationships are linked to worse overall adaptation (e.g., Groh et al., 2012; Fearon et al., 2010; Madigan et al., 2013; Bureau, 2017, 2020; Deneault et al., 2021; Dagan et al., 2022). However, the larger family system in which these dyadic dynamics are embedded may provide a framework more accurately predictive of socioemotional and behavioral development. The family system may provide interactions, experiences, dimensions, and dynamics otherwise not present or at least differentially expressed in individual dyadic or even triadic systems and is therefore characteristically unique. As such, this study explores the functional quality of the family system in the mealtime context as a predictor of socioemotional and behavioral development; specifically, this prediction is analyzed over and above the influence of both parent-child relationships. Guided by an attachment theory and Family Systems Theory, we hypothesize that family functioning dimensions characterized by more positivity, respect, and cohesiveness predict better socioemotional and behavioral adaptation, while family functioning dimensions characterized by more negativity, disruption, and the need for parental authority and intervention predict worse socioemotional and behavioral adaptation.

Attachment

Attachment is a particularly unique and robust expression of the parent-child relationship that has provided compelling evidence in relation to childhood developmental outcomes, particularly for internalizing and externalizing behaviors. Several studies have come to understand that insecure mother-child attachments are related to greater internalizing symptoms and that these associations are stronger for avoidant attachments (Groh et al., 2012; Madigan et al., 2013). Furthermore, research has also shown that children with mother-child insecure-disorganized classifications according to the SSP or Cassidy-Marvin measures were found to have higher levels of externalizing behaviors and problematic outcomes (Badovinac et al., 2020), especially among boys and mixed gender cohorts (Fearon et al., 2010). To complement these findings, meta-analytic work has shown significant associations between father-child insecure attachments and both internalizing and externalizing symptomatology (Deneault et al., 2021). More recently, the effect of combined mother-child and father-child configurations revealed that having insecure attachments to both parents, especially disorganized attachments, were strongly associated with greater externalizing behaviors (Dagan et al., 2022). Collectively, these studies demonstrate the relationship between specific infant- and preschool-aged attachment bonds and developmental outcomes. However, attachment is characteristically rooted specifically in the paradigm of a secure base and a safe haven, especially for infants and very young children, and may not be an appropriate metric of the parent-child relationship for older children.

Synchrony in Middle Childhood

The parent-child relationship in middle childhood, however, proves to be more nuanced than the basis of physical proximity of the attachment figure. Attachment is but one expression of the quality of the parent-child relationship and notably functions under the same premise of foundational internal working models. Due to an increased proficiency in perspective-taking

abilities and goal-corrected interactions, increases in social circles and circumstances, and increases in the need for appropriate emotional regulation and navigation – typically concurrent with increased integration with peer groups at school – internal working models of parent-child relationships in middle childhood are informed and modified by uniquely different characteristics.

Therefore, the expression of this relationship in middle childhood involves a more reciprocal dynamic that is mutually beneficial and appropriately timed for both members and a encompasses a harmonious responsiveness to each other's social, emotional, and behavioral needs and goals. Functioning in complement to the attachment bond, this dyadic synchrony relies on the interactional quality between the parent and the child – one that is characterized by a bidirectional coordination and communication between the parent and the child that forms a relational unit (Barber et al., 2001). Functioning under this premise, researchers have explored dimensions of coordination, communication, partner roles, emotional expression, responsivity/sensitivity, tension/relaxation, mood, and enjoyment of mother-child interactions in a snacktime context as a proxy for dyadic synchrony when children were 5- to 7-years-old (Moss et al., 1998). In relation to the prediction of concurrent and prospective problem behaviors, however, researchers found no significant associations between synchrony in mother-child interactions to either internalizing or externalizing symptoms (Moss et al., 1998). Notably, this analysis was not possible for synchrony in father-child interactions, simply because it was not assessed.

Dyadic Synchrony and The Laughing Task

Inspired by an understanding that both mothers and fathers have synchronous relationships with their child, Bureau and colleagues (2014) devised the Laughing Task (LT) as

an applicable measure for both parents. The LT is an observational paradigm designed to elicit dyadic behaviors among children in preschool and middle childhood (Bureau et al., 2021), and it simply asks the parent to make their child laugh without the use of toys. The task is built upon the idea that mothers and fathers are capable or bringing the child to state of high emotional arousal by exciting them and making them laugh. Parents who foster and accomplish this exchange while monitoring their child's cues and responding appropriately more effectively preserve the quality of their relationship with the child. Similarly, the child's engagement and participation in a goal-corrected partnership is equally as crucial. Furthermore, the LT is conducted without toys in an effort to elicit the appropriate amount of arousal and distress, as research has shown that toys seem to alleviate the responsibility of synchrony because the parent and the child attend to the toy instead of each other (Madigan et al., 2006).

In continuation of this work, the LT was used for mother-child and father-child synchrony specifically in relation to childhood behavior problems (Bureau et al., 2021). In contrast to the expectation of lower synchrony among father-child dyads, no significant differences were found between mothers and fathers in the quality of their interactions with the child in middle childhood. In primary predictive models associating synchrony to child behavior problems, concurrent associations were found to be significant only for the interaction between mother-child and father-child coordination measures (Bureau et al., 2021). Specifically, lower scores of synchronous coordination with both the mother and father predicted greater behavior problems according to the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997). These findings corroborate the integrative model approach (Dagan & Sagi-Schwartz, 2018) and suggest that such relationships should account for "the potential inter-influence between parents of the same family in the prediction of child outcomes" (Bureau et al., 2021, p. 175).

Shifting from Dyadic Measures to Family Measures

Although the predictive effects of each parent-child attachment relationship and the integrated configuration of synchrony among both parents is found to be robust, these relationships are nevertheless part of a larger, more comprehensive family system (Kerr, 1981; Iwanski et al., 2023). Both mother-child and father-child relationships are characteristic of a particular type of relationship – one that involves two individuals, typically engaged in goal-corrected interactions. Therefore, they may only be indicative of such predictive effects. However, the family system is one that involves many individuals, all of whom hold personal and differential feelings and expectations, hold specific and perhaps competing relationships with each other (e.g., siblings), and hold their own shifting capabilities and skills for navigating the family dynamic. For example, the child's individual relationship to the mother or father, or even the child's individual relationship to their own sibling, is not indicative of the child's relationship to the mother and father and the sibling in a shared context; the child may cooperate well with their sibling during a shared playtime activity, but compete with each other for attention in the presence of parents. The interrelated functions of the family system adapt to its own changing dynamics. Indeed, research has even shown that compared to one-on-one interactions, communication among marital dyads is less hostile, less coercive, and less warm when other family members are around (Deal et al., 1999). Measurement at the family level has shown unique contributions that are otherwise not measured at the parent-child level (Hayden et al., 1998). Therefore, research must shift from parent-child perspectives to a more integrated family systems perspective that accounts for the manner and effectiveness with which the family unit responds and adapts to challenges, as well as functions to promote and foster the development of children.

Family Systems

The family exists as a context for the functional relationships of individual parent-child, parent-parent, or even child-child relationships, and is therefore an "organized whole with reciprocally interdependent elements" (Iwanski et al., 2023, p. 4). Furthermore, part of the family's function – especially among families with young children (Broderick, 1993) – is to ensure the appropriate development of the child. As a system of measurement characteristically different from parent-child dyadic relationships, the functional quality of the family system is hypothesized to provide significant added predictive effects in its association to childhood socioemotional and behavioral problems, over and above the effects delineated by the synchrony of the mother-child and father-child relationships.

Family Mealtime

And yet, the challenge of measuring the functional quality of the family system paradoxically lies in its inherent richness and complexity (Hayden et al., 1998). In an effort to understand the family system, an assessment must encompass a context in which most or all family members informally get together as a whole on a regular or nearly daily basis that is flexible to the needs of family life. Importantly, the family meal remains a relevant context for children at this age, at least up until early adolescence (Lawrence & Plisco, 2017).

Families are on full display during the mealtime; they may use this time to catch up on each other's lives, reminisce about shared family history, laugh at and with each other, seek advice from each other, perhaps confront each other about personal issues, or even use the family meal as an opportunity to compete with each other, as is usually the case for siblings. In practice, the family meal is an event driven by conversation, communication, and connection (Middleton, 2020). Their interactions – or lack thereof – help to shape and define the characteristic functional

quality of the family system. For children, the family meal may be the integral setting for the development of social skills, emotional expression and regulation, and interpersonal problem solving; it is the proverbial "training ground" for children to navigate these competencies in a familiar environment. Additionally, parents may exhibit behaviors in the family meal that may be less salient in dyadic interactions. For example, siblings who spend the mealtime fighting with each other may require the parent to be momentarily authoritative to dispel this conflict and alleviate its escalation; notably, this is not a function that would be required in parent-child dyadic interactions. Therefore, because the goal of family functioning is child development (Broderick, 1993; Papero, 2019), family functioning is explored as a significant predictor of the child's developing socioemotional and behavioral outcomes and competencies.

Socioemotional and Behavioral Outcomes

Socioemotional and behavioral adaptations in middle childhood are characteristically different from preschool, as children in middle childhood are faced with unique challenges as they are increasingly introduced and exposed to new experiences with peers at school (Hartup, 1983). The experience of bullying, for example, is not likely to occur at home in the family environment, but likely to occur at school; without their parents present, the child must be able to appropriately navigate through this situation. Unfortunately, not all children are equipped with the skills necessary to effectively adapt to these kinds of circumstances. The functions of the family system are hypothesized to build upon these competencies. As children transition into middle childhood, it becomes increasingly important to identify important socioemotional and behavioral adaptations that allow the child to begin to make their way through the world more independently. Therefore, developments related to emotion regulation, peer issues, behavioral conduct, hyperactivity, or prosociality, among others, are particularly salient.

Objectives

The primary objective of this study is to investigate the predictive effects of family functioning quality on socioemotional and behavioral adaptation in middle childhood, over and above mother-child and father-child dyadic synchrony in preschool. We hypothesize that over and above the predictive effects of mother-child and father-child dyadic synchrony, the functional quality of the family system will significantly predict measures of socioemotional and behavioral development. Specifically, dimensions suggesting more optimal family functioning are believed to predict decreases in dysfunctional outcomes such as emotional problems, peer problems, conduct problems, hyperactivity, Separation Anxiety Disorder (SAD), Generalized Anxiety Disorder (GAD), Major Depressive Disorder (MDD), Oppositional Defiance Disorder (ODD), and Attention-Deficit Hyperactive Disorder (ADHD), and increases in functional outcomes such as prosocial behaviors and general strengths. The inverse is also hypothesized for dimensions indicating less optimal family functioning.

Methods

Participants

Participants in this study were recruited via newspaper, radio, and online advertisements. Data was collected at Time 1 (M_{age} = 3.89 years, SD = 0.73) and Time 2 which took place 5 years later (M_{age} = 8.37 years, SD = 0.89). Time 1 included 157 (opposite-sex intact) families and Time 2 included the remaining 83 families from the same sample. As previously mentioned, considering the five-year gap between time points, the necessity for biparental intact families, and the high work mobility, this high attrition rate of 47% is the norm and within standards. Analyses of dyadic synchrony, family functioning at mealtime, behavior problems, and psychological symptoms are analyzed from Time 2. After removing cases with incomplete data

or cases that were unable to be behaviorally coded with the Family Mealtime Q-Sort (Kiser et al., 2010), a total of 71 families with complete data on family functioning quality were left for analysis.

Of these 71 families, a majority (88.7%) of families reported an annual household income above $75,000. Approximately 84.5% of mothers and approximately 70.5% of fathers had at least an undergraduate degree. Most families were of low socioeconomic risk. Furthermore, 81.7% of families identified being English-speaking, while 18.3% identified being French-speaking. A majority of mothers identified as White/Caucasian (83.1%), while the remaining mothers identified as South Asian (5.6%), Chinese (4.2%), Black (4.2%), Arab (2.8%), Japanese (1.4%), or Other (2.8%). Meanwhile, a majority of fathers identified as White/Caucasian (84.5%), while the remaining fathers identified as South Asian (7%), Black (4.2%), Chinese (1.4%), Latin American (1.4%), and Arab (1.4%). This sociodemographic profile provides an accurate representation of the region's population (Statistics Canada, 2017). Of these 71 families, 46.5% of children were reported to be male, while 53.5% of children were reported to be female. Attrition analyses found no significant differences between families who were included in the analysis and families who were not included in the analysis on sociodemographic variables including age, child gender, annual household income, maternal education, paternal education, language spoken, maternal ethnicity and paternal ethnicity. Thus, missing cases presented little threat to the validity of this study. Descriptive statistics of sociodemographic variables are presented in Table 11.

Table 11.

Descriptive Statistics of Sociodemographic Variables.

	Mean	Median	Std. Deviation	Skewness	Kurtosis	Range	Min.	Max.
Child Age[a]	100.35	99.0	11.37	.22	-.80	46	79	125
Annual Household Income	7.52	8.00	.984	-2.42	5.62	4	4	8
Education - Father[b]	16.01	16.00	2.46	.69	.21	10	12	22
Education - Mother[b]	16.31	16.00	2.49	.34	-.33	10	12	22

Note: [a]Months. [b]Years.

Procedure

This study involved a total of two lab visits and one home visit. At Time 2, a total of 83 families were scheduled for a home visit in which two research assistants visited the family's home upon consent. A video camera was set up upon arrival, and families were instructed to complete their family meal as they normally would. There was no time limit set for completion. Upon completion, families were asked to inform the research assistants. Research assistants waited elsewhere so as to not influence or disturb typical family mealtime functioning. Parents were sent the Strengths & Difficulties Questionnaire (SDQ; Goodman, 1997) in order to assess child behavior problems. Other assessments conducted during the home visit do not pertain to this study.

After providing consent, families were scheduled for two separate lab visits 1-2 months after the home visit, in counterbalanced order for each parent. During the first lab visit, the Laughing Task is completed with the child and one parent. The parent and the child are instructed to sit at the play table facing each other. The research assistant asks the parent to try making their child laugh without the use of toys for 2 minutes. Six months later, the other parent

is invited to the lab with their child to complete the same Laughing Task. The interactions are recorded and coded by three independent coders with an adapted coding system derived from Moss & colleagues (1996). Other assessments conducted during the lab visits do not pertain to this study. During this visit, children were also tasked with completing a measure of self-reported psychological symptoms via the Dominic-Interactive (Valla et al., 2000). The child was instructed to sit in a separate playroom in front of a computer, on which the research assistant had already loaded the Dominic-Interactive program. The research assistant explained to the child that they can only select one response, yes or no. The research assistant sat alongside the child as the child completed the tutorial section of the assessment to ensure the child understood the instructions. Upon completion of the tutorial, the research assistant was instructed to sit elsewhere in the room and read a magazine so as to not influence the child in any way but still remain available if the child were to have any questions. Once the child completed all 90 items of the Dominic-Interactive program, the child was told that they can go and sit at the play table. Upon completion of the home visit, as well as after each lab visit, parents were given monetary compensation, while children received a toy. All procedures and methods were approved by the institution's Research Ethics Board.

Measures

Sociodemographic information. Parental report of child age, child gender, and annual household income was collected at Time 1 with one parent. At Time 2, both parents independently completed a sociodemographic questionnaire that included their annual household income and years of education.

Quality of family functioning. Videotaped family meals were behaviorally coded according to the Family Mealtime Q-Sort (Kiser et al., 2010). Observation of the family meal in

the home allowed for greater ecological validity and assesses the relational interactions between family members. Coders assigned 54 different statements along a flat and forced q-sort distribution based on the observation of specific events and interactions, the lack thereof, as well as the overall feel of the family meal. According to q-sort methodology, this distribution consists of nine columns with six statements each, with one end representing the most characteristic statements used to describe the family meal and the other end representing the least characteristic statements. Therefore, a q-sort distribution is created for each family which is then compared against an independently derived "optimal" q-sort to calculate a continuous overall family functioning score ranging from -1 to +1. The Family Mealtime Q-Sort (Kiser et al., 2010) has demonstrated good interrater reliability and satisfactory validity when validated against similar measures (MICS; Dickstein et al., 1994).

The original Q-Sort involves eight dimensions of family functioning adapted from Kiser and colleagues' original study (2010): Positive Tone, Clear Plan, Meaningful Conversations, Involvement, Lack of Disruptions, Parenting/Teaching/Supervision, Problem Solving, and Adult in Charge. Although the original Q-Sort reports only the first six dimensions, it provides a coding system that includes all eight dimensions. However, likely due to a combination of a low sample size and a low item count, low Cronbach's alphas were revealed in the following factors: Parenting/Teaching/Supervision (3 items; $\alpha = .37$), Problem Solving (3 items, $\alpha = .56$), and Adult in Charge (3 items, $\alpha = .46$). Because the factors of Parenting/Teaching/Supervision and Adult in Charge share a common theme of authority, these factors were merged to create an Authority factor (6 items, $\alpha = .51$). However, Problem Solving was deleted due to both low item count and low α. Furthermore, the Lack of Disruptions dimension was renamed to Adjustment to Disruptions to better reflect our coding. Therefore, the final Q-Sort factors for analysis were the

following: Positive Tone (17 items, α = .92, ICC = .76), Clear Plan (9 items, α = .91, ICC = .80), Meaningful Conversations (6 items, α = .86, ICC = .65), Involvement (4 items, α = .80, ICC = .65), Adjustment to Disruptions (4 items, α = .63, ICC = .61), and Authority (6 items, α = .51, ICC = .75). According to the guidelines set out by Cicchetti (1994), which state that intraclass correlation values below .40 are considered poor, values between .40 and .59 are fair, values between .60 and .74 are good, and values above. 75 are excellent, our reliability coefficients are considered to be good to excellent.

Dyadic synchrony. Parent-child dyadic synchrony at Time 2 was assessed with the Laughing Task (LT; Bureau et al., 2014), an observational assessment that asked parents to make their child laugh without the use of toys. By bringing their child to a state of excitation, parents must monitor and maintain appropriate responses, thus providing us with a measure of their "reciprocal, collaborative, and appropriate parent-child interaction (Bureau et al., 2014).

To code these interactions, an adapted coding system originally derived from Moss and colleagues (1996) was utilized in which a total of 10 scales were scored from 1-4 (.5 intervals were possible). Where a "1" demonstrates the lack of the dimension, a "4" indicates the most optimal representation of the dimension. The dimension of appropriate roles refers to the appropriate and implicit assignment of parents and children in a parent-child interaction. In other words, a pattern of role-reversal, in which children act as regulators of the dynamic, should not be observed. Parental sensitivity is the dimension responsible for the parent's attunement and appropriate response to their child's needs or mental state. The dimension of synchronized emotions indicates a shared expression of affective states. In this task, relaxation simply refers to the presence of a comfortable, relaxed interaction and not one marked by anxiety or tenseness. In the same vein, the dimension of pleasure observes whether both partners share and experience

feelings of pleasure instead of displeasure. The dimension of intimacy here refers to the relative comfort with which partners in this task engage in or accept physical contact, which some parents use as a method of making their children laugh. This ties in with the dimension of appropriate parental effort, which considers that parents should not be passive in this endeavour, but rather employ the right amount of effort to achieve the task. The dimension of parents' respect for child's rhythm involves the parent refraining from being intrusive while being able to follow their child's rhythm. The lack of toys in this task lends to the dimension of attention centered on the dyad, which observes that partners are focused on each other and not distracted by the external environment. Lastly, the dimension of overall coordination is an overall score of the quality of the interaction (Moss et al., 2004).

Parent-reported behavior problems. Child behavior problems were assessed using the maternal and paternal reports on the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997). Developed to expand the Rutter questionnaires (Elander & Rutter, 1996), the SDQ is a parent-reported screening measure intended for use among children ranging from 4-16 years. The SDQ consists of 25 items which are equally distributed across five dimensions: conduct problems, emotional symptoms, hyperactivity/inattention, peer problems, and prosocial behaviors. Conduct problems include but are not limited to behaviors such as temper tantrums, fighting, bullying, lying, stealing, or cheating. Emotional symptoms include but are not limited to behaviors of complaints about feeling sick, nervousness, clinginess, fear, or worry. Hyperactivity/inattention includes but is not limited to behaviors of restlessness, fidgeting, squirming, being distracted, or having a wandering concentration. Peer problems includes but are not limited to behaviors of isolation, lacking at least one good friend, being picked on by other children, or getting along with adults better than children. Prosocial behaviors include but are not

limited to behaviors of sharing, altruism, or being helpful, kind, and considerate. For each item, parents are instructed to report on a three-point Likert scale of "not true," "somewhat true," or "certainly true." These scores are summed to create a score ranging from 0 to 10. A composite scale for difficulties can be calculated by combining hyperactivity/inattention, emotional symptoms, conduct problems, and peer problems, with scores ranging from 0 to 40. Because the children in our sample are under the age of 17, the SDQ we use is a 25-item assessment completed by the children's parents. The SDQ has demonstrated good psychometric properties and has been validated against the Rutter questionnaires (Elander & Rutter, 1996) and the Child Behavior Checklist (Goodman & Scott, 1999; Stone et al., 2010).

Self-reported psychological symptoms. The Dominic-Interactive (Valla et al., 2000) is a computerized questionnaire consisting of 91 items in which children aged 6-11 years old are presented with fictitious scenarios with the character Dominic, and asked if they would think, feel, or behave like Dominic if they were in those scenarios. Originally developed as a short-form screening assessment with only 26 scenarios, a revised version of the Dominic (Valla et al., 1994a) saw a version with 194 scenarios. However, researchers determined it too lengthy and sought to develop a more compact version. Unlike its predecessors, the current Dominic-Interactive (Valla et al., 2000) was guided by the DSM-IV-TR, includes 90 scenarios, takes approximately 15 minutes to complete, and is computerized in order to lessen response and social desirability bias, automatically record "yes" or "no" responses, and reduce assessment costs. This measure is intended for use in at least preschool-aged children who have the cognitive and linguistic abilities to comprehend the different situations and place themselves in them, and has been used among children in middle childhood (Bureau, 2020). The Dominic-Interactive screens for ADHD, ODD, CD, MDD, SAD, generalized anxiety disorders, and specific phobias.

It also provides scores on externalizing, internalizing, and strengths and competency scales. Scenarios that are indicative of psychological symptoms are interspersed with a happy Dominic in normal behavior scenarios in a effort to minimize presenting the child with a series of negatively-valenced questions. Versions of the Dominic have been devised to assess children from different backgrounds (see the Terry Questionnaire; Valla, 2000) and has been translated into Spanish, German, and French adaptations. The Dominic-Interactive has demonstrated acceptable reliability and validity (Bergeron et al., 2013).

Analytic Plan

In this study, family functioning at mealtime as assessed by the Family Mealtime Q-Sort (Kiser et al., 2010) is proposed to significantly predict behavior problems as assessed by the Strengths & Difficulties Questionnaire (SDQ; Goodman, 1997) and psychological symptoms as assessed by the Dominic-Interactive (Valla et al., 2000), over and above mother-child and father-child dyadic synchrony as assessed by the Laughing Task (LT; Bureau et al., 2014). A total of 71 families were analyzed using Statistical Package for the Social Sciences (SPSS Version 25; IBM Corp.). Missing data were dealt with using an iterative Expectation Maximization (EM) algorithm, which estimates the new dataset based on an optimized regression calculation.

Because this is secondary data, a post-hoc power analysis using G*Power was conducted. For a regression analysis, a linear multiple regression with a fixed model and an R^2 increase was selected. A sample size of 71 and an alpha level of .05 was entered. Because this study is interested in the added predicted effect of the independent variable over and above established predictors, one predictor variable was entered (Family Mealtime Q-Sort), while a total of three predictor variables was entered (Family Mealtime Q-Sort, mother-child Laughing Task, father-child Laughing Task). Given a medium effect size ($f^2 = .015$, $\alpha = .05$), a power of .90 is

calculated and given a large effect size ($f^2 = .35$, $\alpha = .05$), a power of .99 is calculated. According to these estimates, a regression analysis is likely to detect a medium to large effect size.

The analytic objectives are as follows: (1) to explore correlations between family functioning at mealtime and developmental outcomes. Then, based on significant correlations, (2) the regression analysis explores family functioning at mealtime as a predictor of behavior problems and psychological symptoms, over and above mother-child and father-child dyadic synchrony.

Regressions are conducted using SPSS. In order to select appropriate associations for regression and to reduce the number of regression analyses perform (i.e, to reduce likelihood of Type II error), correlations are first conducted to identify significant associations between family functioning quality and behavior problems and psychological symptoms. In our regression analyses, appropriate sociodemographic covariates are entered when necessary in the first step, mother-child and father-child dyadic synchrony (Laughing Task; Bureau et al., 2014) are entered in the second step, family functioning quality (Family Mealtime Q-Sort) is entered in the third step, and behavior problems (SDQ; Goodman 1997) and psychological symptoms (Dominic-Interactive; Valla et al., 2000) are entered as outcome variables. Measures of family functioning quality include the aforementioned Family Mealtime Q-Sort (Kiser et al., 2010) dimensions as well as overall family functioning. These are included in this study to provide a more parsimonious prediction of developmental outcomes in an effort to identify clearer conceptual relationships. These are analyzed in both analytic objectives. Appropriate covariates are included when necessary.

We reiterate the following variables for analysis. Dyadic synchrony to both the mother and father are assessed with a single cumulative score each. Family functioning quality for each

family was assessed with overall family functioning score, as well as dimension scores on the following factors: Positive Tone, Clear Plan, Meaningful Conversations, Involvement, Adjustment to Disruptions, and Authority. Behavior problems were as follows: Emotional Problems, Peer Problems, Conduct Problems, Hyperactivity, Prosociality, a composite Internalizing Problems scale, and a composite Externalizing Problems scale. Psychological symptoms were as follows: Specific Phobias, Separation Anxiety Disorder (SAD), Generalized Anxiety Disorder (GAD), Major Depressive Disorder (MDD), Oppositional Defiance Disorder (ODD), Conduct Disorder (CD), Attention Deficit Hyperactive Disorder (ADHD), Strengths, a composite Internalizing Symptoms scale, and a composite Externalizing Symptoms scale.

Results

Preliminary Results

Although there were 71 cases with complete data on the Family Mealtime Q-Sort (Kiser et al., 2010), Little's MCAR Test was conducted to determine the nature of the remaining missing data on Dyadic Synchrony (LT; Bureau et al., 2014), behavior problems (SDQ; Goodman, 1997), and psychological symptoms (Dominic-Interactive; Valla et al., 2000), and discovered statistically significant results, suggesting that cases were Not Missing At Random. Therefore, Expectation Maximization was conducted to impute missing values. Missing data analysis using the Expectation-Maximization algorithm imputed some cases which were above or below possible limits for certain variables, and these particular data points were manually rectified to reflect the upper and lower limits of the variable's scale. The dataset was examined for normality, skewness, and kurtosis to ensure that variables were within normal limits or were reasonable and sensible given the nature of the data. A Durbin-Watson analysis revealed statistic values between 1.75 and 2.43, indicating independence of observations. Collinearity diagnostics

were conducted, and all VIF values were below 10, indicating no significant multicollinearity among the main predictors.

Simple bivariate correlations were conducted to identify any potential covariates. Correlations indicated that child age, child gender, annual household income, years of education for both the mother and the father, language, and number of siblings were identified as significant covariates. The covariate of number of siblings, however, was not included in subsequent analyses; adjustment of continuous variables with few levels such as number of siblings is generally not advisable, as it may result in more pronounced measurement errors compared to graded measurement errors (Statalist, Schechter, 2018). Therefore, appropriate covariates of child age, gender, language, annual household income, mother's years of education, and father's years of education were included when necessary.

Primary Results

Partial correlations between dyadic synchrony and all outcome variables.

Correlations and partial correlations were conducted to explore the association between measures of mother-child and father-child dyadic synchrony (LT; Bureau et al., 2014) and both behavior problems (SDQ; Goodman, 1997) and psychological symptoms (Dominic-Interactive; Valla et al., 2000), and are presented in Table 12. No significant correlations were found.

Table 12.

Correlations between Dyadic Synchrony and all outcome variables.

	Dyadic Synchrony	
	Mother-Child	Father-Child
Dominic-Interactive		
Phobias	-.10	.14
Separation Anxiety Disorder	.05	.11
Generalized Anxiety Disorder	.02	.06
Major Depressive Disorder	.10	-.06
Oppositional Defiance Disorder	.15	-.03
Conduct Disorder	.01	.04
Attention-Deficit Hyperactive Disorder	-.01	.05
Strengths	-.07	.04
Internalizing Symptoms	.05	.04
Externalizing Symptoms	.05	.05
SDQ		
Emotion Problems[a]	.00	.04
Peer Problems	.16	.04
Conduct Problems[b]	-.05	.03
Hyperactivity[a,c,d]	.07	.21
Prosociality	.10	-.16
Internalizing Problems[b]	.03	.08
Externalizing Problems[a]	.05	.13

Note: [a]=Controlling for Language. [b]=Controlling for Age. [c]=Controlling for Gender. [d]=Controlling for Father's Years of Education.

Partial correlations between Family Q-Sort dimensions and all outcome variables.

Correlations and partial correlations were conducted to explore the association between Family Mealtime Q-Sort (Kiser et al., 2010) and both behavior problems (SDQ; Goodman, 1997) and psychological symptoms (Dominic-Interactive; Valla et al., 2000). In an effort to provide more parsimonious correlations to guide regressions and reduce statistical analyses, outcome scales that did not have a complementary scale across the SDQ and the Dominic-Interactive were removed from subsequent analyses, while outcome scales that did have a complementary scale

across measures were kept. For instance, child-reported Conduct Disorder in the Dominic-Interactive is conceptually similar to parent-reported Conduct Problems in the SDQ. However, child-reported Specific Phobias in the Dominic-Interactive does not have a parent-reported equivalent in the SDQ and was removed from subsequent analyses. This reduction of scales allowed us to retain the following scales: child-reported Generalized Anxiety Disorder, Major Depressive Disorder, Conduct Disorder, Attention-Deficit Hyperactivity Disorder, and Strengths, as well as parent-reported Emotion Problems, Peer Problems, Conduct Problems, Hyperactivity, and Prosociality. Results for remaining scales are presented in Table 13.

Partial correlations controlling for age showed that Conduct Disorder was negatively related to Meaningful Conversations (*partial r* = -.30, $p < .05$), while bivariate correlations showed that Conduct Disorder was negatively related to Adjustment to Disruptions ($r = -.25$, $p < .05$) and Overall Family Functioning ($r = -.25$, $p < .05$). Correlations showed that Emotional Problems were positively related to Involvement ($r = .24$, $p < .05$). Lastly, correlations showed that Peer Problems were negatively related to Authority ($r = -.27$, $p < .05$).

Table 13.

Correlations between Family Mealtime Q-Sort dimensions and all outcome variables.

	Factor 1	Factor 2	Factor 3 [a,b]	Factor 4	Factor 5	Factor 6	Overall Fam. Function.
Dominic-Interactive							
G.A.D.	-.08	-.07	-.03	-.02	-.02	.03	-.07
M.D.D.	.02	.11	-.04	.05	.10	.10	.03
C.D.	-.20	-.14	-.30*	-.06	-.25*	.10	-.25*
A.D.H.D.	.13	-.08	-.10	-.22	-.02	-.01	-.16
Strengths	-.02	-.01	-.11	-.05	-.03	-.18	-.05
SDQ							
Emotion Problems[a]	-.07	-.00	.04	.32**	.07	-.05	-.01
Peer Problems	.03	-.02	-.03	-.05	-.07	-.27*	-.00
Conduct Problems[b]	.09	-.05	.04	-.11	-.05	-.02	.03
Hyperactivity[a,c,d]	-.16	-.24*	-.18	.00	-.13	-.10	-.20
Prosociality	-.04	.06	-.06	.06	.06	.05	.02

Note: S.A.D.=Separation Anxiety Disorder. G.A.D.=Generalized Anxiety Disorder. M.D.D.=Major Depressive Disorder. O.D.D.=Oppositional Defiance Disorder. C.D.=Conduct Disorder. A.D.H.D.=Attention Deficit Hyperactive Disorder. Factor 1=Positive Tone, Factor 2=Clear Plan, Factor 3=Meaningful Conversations, Factor 4=Involvement, Factor 5=Adjustment to Disruptions, Factor 6=Authority, Overall Fam. Function.=Overall Family Functioning. [a]=Controlling for Language. [b]=Controlling for Age. [c]=Controlling for Gender. [d]=Controlling for Father's Years of Education.
*p<.05. **p<.01.

Linear regressions for Family Q-Sort dimensions and selected outcome variables.

Based on significant correlations from the previous analysis, linear regressions were conducted to explore the predictive effects of specific Family Mealtime Q-Sort dimensions (Kiser et al., 2010) on specific behavior problems (SDQ; Goodman, 1997) and psychological symptoms (Dominic-Interactive; Valla et al., 2000), over and above dyadic synchrony (LT; Bureau et al., 2014) to both the mother and father.

Linear regressions showed that Meaningful Conversations predicted Conduct Disorder over and above mother-child and father-child Dyadic Synchrony. The final model accounted for

approximately 9.0% of the variance in Conduct Disorder, with an F-value of 1.64, df of 4,66, and an effect size f^2 of 2.69. The final model accounted for an additional 8.9% of the variance in Conduct Disorder, over Dyadic Synchrony, with a significant F-change of .01. Indeed, neither mother-child or father-child Dyadic Synchrony were found to be significant (β = .01, p = .96 and β = .04 p = .77, respectively), while Meaningful Conversations was (β = -.31, p = .01). In other words, Dyadic Synchrony accounted for .1% of the variance in the prediction of Conduct Disorder, while Meaningful Conversations accounted for around 9.0% in predictive power. In particular, analyses revealed this relationship to be negative, suggesting that an increase in Meaningful Conversations significantly decreases the likelihood of Conduct Disorder. Results are presented in Table 14.

Table 14.

Hierarchical Linear Regressions: Predicting Conduct Disorder from Family Mealtime Q-Sort Factor 3: Meaningful Conversations.

Dominic Interactive: Conduct Disorder	Model 1			Model 2			Model 3		
Variable	B	SE B	β	B	SE B	β	B	SE B	β
Age	.001	.015	.005	.001	.015	.008	.010	.015	.080
Dyadic Synchrony – Mother				.018	.340	-.096	.007	.327	.003
Dyadic Synchrony – Father				.124	.419	.036	.046	.404	.014
Factor 3: Meaningful Conversations							-.242	.095	-.308*
R^2		.000			.001			.090	
F Change in R^2		.000			.001			6.454	

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

Linear regressions showed that Adjustment to Disruptions predicted Conduct Disorder over and above mother-child and father-child Dyadic Synchrony. The final model accounted for approximately 7.0% of the variance in Conduct Disorder, with an F-value of 1.67, df of 3,67 and

an effect size f^2 of 2.80. The final model accounted for an additional 6.8% of the variance in Conduct Disorder, over Dyadic Synchrony, with a significant F-change of .03. Indeed, neither mother-child or father-child Dyadic Synchrony were found to be significant ($\beta = .01, p = .95$ and $\beta = .04, p = .77$), while Adjustment to Disruptions was ($\beta = -.28, p = .03$). In other words, Dyadic Synchrony accounted for .1% of the variance in the prediction of Conduct Disorder, while Adjustment to Disruptions accounted for around 7.0% in predictive power. In particular, analyses revealed this relationship to be negative, suggesting that an increase in Adjustment to Disruptions significantly decreases the likelihood of Conduct Disorder. Results are presented in Table 15.

Table 15.

Hierarchical Linear Regressions: Predicting Conduct Disorder from Family Mealtime Q-Sort Factor 5: Adjustment to Disruptions.

Dominic Interactive: Conduct Disorder	Model 1			Model 2		
Variable	B	SE B	β	B	SE B	β
Dyadic Synchrony – Mother	.021	.336	.007	-.206	.342	-.074
Dyadic Synchrony – Father	.122	.414	.036	.048	.403	.014
Factor 5: Adjustment to Disruptions				-.262	.118	-.275*
R^2		.001			.070	
F Change in R^2		.045			4.925	

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

Linear regressions showed that Overall Family Functioning predicted Conduct Disorder over and above mother-child and father-child Dyadic Synchrony. The final model accounted for approximately 6.1% of the variance in Conduct Disorder, with an F-value of 1.46, df of 3,67 and an effect size f^2 of 2.13. The final model accounted for an additional 6% of the variance in Conduct Disorder, over Dyadic Synchrony, with a significant F-change of .04. Indeed, neither

mother-child or father-child Dyadic Synchrony were found to be significantly correlated (β = .01, p = .95 and β = .04, p = .77, respectively), while Overall Family Functioning was (β = -.25, p = .04). In other words, Dyadic Synchrony accounted for .1% of the variance in the prediction of Conduct Disorder, while Overall Family Functioning accounted for around 6.1% in predictive power. In particular, analyses revealed this relationship to be negative, suggesting that an increase in Overall Family Functioning significantly decreases the likelihood of Conduct Disorder. Results are presented in Table 16.

Table 16.

Hierarchical Linear Regressions: Predicting Conduct Disorder from Family Mealtime Q-Sort Overall Family Functioning.

Dominic Interactive: Conduct Disorder	Model 1			Model 2		
Variable	B	SE B	β	B	SE B	β
Dyadic Synchrony – Mother	.021	.336	.007	-.011	.328	-.004
Dyadic Synchrony – Father	.122	.414	.036	.051	.405	.015
Overall Family Functioning				-.896	.433	-.246*
R^2		.001			.061	
F Change in R^2		.045			4.280	

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

Linear regressions showed that Involvement predicted Emotional Problems over and above mother-child and father-child Dyadic Synchrony. The final model accounted for approximately 6.9% of the variance in Emotional Problems, with an F-value of 1.65, df of 3,67, and an effect size f^2 of 2.73. The final model accounted for an additional 6.6% of the variance in Emotional Problems, over Dyadic Synchrony, with a significant F-change of .03. Indeed, neither mother-child or father-child Dyadic Synchrony were found to be significant (β = -.01, p = .99 and β = .05, p = .66, respectively), while Involvement was (β = .26, p = .03). In other words,

Dyadic Synchrony accounted for .3% of the variance in the prediction of Emotional Problems, while Involvement accounted for around 6.9% in predictive power. In particular, analyses revealed this relationship to be positive, suggesting that an increase in Involvement significantly increases the likelihood of Emotional Problems. Results are presented in Table 17.

Table 17.

Hierarchical Linear Regressions: Predicting Emotional Problems from Family Mealtime Q-Sort Factor 4: Involvement.

SDQ: Emotional Problems	Model 1			Model 2		
Variable	B	SE B	*β*	B	SE B	*β*
Dyadic Synchrony – Mother	-.007	.391	-.002	-.106	.383	-.033
Dyadic Synchrony – Father	.212	.481	.053	.379	.475	.095
Factor 4: Involvement				.254	.116	.262*
R^2		.003			.069	
F Change in R^2		.097			4.748	

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

Linear regressions showed that Authority predicted Peer Problems over and above mother and father Dyadic Synchrony. The final model accounted for approximately 10.0% of the variance in Peer Problems, with an F-value of 2.48, df of 3,67, and an effect size f^2 of 6.14. The final model accounted for an additional 7.3% of the variance in Peer Problems over Dyadic Synchrony, with a significant F-change of .02. Indeed, neither mother-child or father-child Dyadic Synchrony were found to be significant ($\beta = .16$, $p = .19$ and $\beta = .04$, $p = .74$, respectively), while Authority was ($\beta = -.27$, $p = .02$). In other words, Dyadic Synchrony accounted for 2.7% of the variance in the prediction of Peer Problems, while Authority accounted for around 10.0% in predictive power. In particular, analyses revealed this relationship to be negative, suggesting that an increase in Authority significantly decreases the likelihood of Peer Problems. Results are presented in Table 18.

Table 18.

Hierarchical Linear Regressions: Predicting Peer Problems from Family Mealtime Q-Sort Factor 6: Authority.

SDQ: Peer Problems	Model 1			Model 2		
Variable	B	SE B	*β*	B	SE B	*β*
Dyadic Synchrony – Mother	.407	.306	.159	.433	.297	.169
Dyadic Synchrony – Father	.126	.377	.040	.078	.366	.025
Factor 6: Authority				-.378	.162	-.271*
R^2		.027			.100	
F Change in R^2		.935			5.442	

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

Discussion

Correlations were conducted between measures of dyadic synchrony and our outcome variables. These analyses show that neither mother-child or father-child dyadic synchrony are significantly independently associated with measures of socioemotional and behavioral development.

These findings align with Bureau and colleagues' (2021) findings which show that "individual parent-child coordination scores at… did not predict children behavior problems scores" (p. 173). However, they do show predictive effects of parent-child coordination on behavior problems when parent-child coordination of the other parent is taken into account as the moderator (Bureau et al., 2021). Indeed, this interactive effect that considers both parents is further explored by Dagan and colleagues (2022) and finds similar predictive results with mother-child and father-child configurations. Therefore, the interaction of mother-child and father-child dyadic synchrony may be an avenue for future investigation. Nevertheless, the current study extends the child's network of influence and conducts multiple regression analyses that explore the predictive effects of the family system on socioemotional indices.

Prediction Models

Our regression analyses suggest that more meaningful conversations, better adjustment to disruptions, and better overall functioning of the family system at mealtime predicts a lower likelihood of child self-reported measures of Conduct Disorder. It is important to note, however, that due to our non-clinical sample and the limitations of the Dominic-Interactive (Valla et al., 2000), this study does not imply the clinical diagnosis of Conduct Disorder; such evaluation is beyond the scope of the Dominic-Interactive assessment and this thesis. Alas, even typically developing children occasionally exhibit conduct symptoms; with such increasing autonomy and peer influence in middle childhood, it is to be expected that children may occasionally lie or act out. However, this study emphasizes symptoms of Conduct Disorder as assessed by the Dominic-Interactive, referring to the indication or presence of behaviors that are reported by the child. Our results suggest that conduct symptoms in middle childhood are significantly less likely in the context of better overall family functioning characterized by more meaningful family conversations and an increased family ability to manage disruptions in the family meal.

Meaningful Conversations

Our results suggest that meaningful conversations in the family meal are inversely related to the likelihood of conduct symptoms. The family meal is an ideal setting for parents to engage in conversations with their children and to coach them on interpersonal relationships, problem solving, and demonstrate healthy behaviors (Lawrence & Plisco, 2017). Indeed, conversations at mealtime can be effectively used by parents to strategically maneuver minor argumentative sequences. In one study, researchers exemplify this in a brief argumentative sequence in which a 5-year-old child wants to play with a lemon, but is refused by the mother who takes the lemon away from the child and when questioned, appeals to the child's feelings towards the father by

reasoning that the father likes lemons in his salad (Bova & Arcidiacono, 2013). Of course, children in middle childhood are likely to have more sophisticated arguments and are less likely to be convinced by an invocation of authority, but even this small exchange carries meaning in this family. Older children may use the open forum of conversation at mealtime to talk poorly about their teacher or talk of their coordinated plans to pull a prank on a peer; in this sense, parents have a responsibility and an opportunity to set limits on behavior, teach their children respect, and encourage their children to be more empathetic to their peer's experiences or circumstances. Mealtime interactions can provide the avenue for parents to enforce authority, demonstrate appropriate social adaptations, and communicate important values. Although these examples certainly do not encompass the breadth of mealtime conversation topics, it is more important to understand that conversations themselves are relationally contextualized; they are oriented to and adjusted for the characteristics of the context in which they exist (Schegloff, 2007), and therefore meaning can mean many things and is unique to each family. Nevertheless, our results show that more meaningful conversations are linked to a lower incidence of conduct symptoms, which may be due to the advantage of the communication of values and skills inherent to family conversations.

Adjustment to Disruptions

The reality of family life is that it is ripe with disruptions; indeed, disruptions are inevitable and to be expected in a family system with young children. Mealtimes can be fun and lively without being disruptive or disrespectful. However, it is when these disruptions interrupt the flow of the meal, prevent family members from properly and appropriately engaging in family functions, or even potentially remove family members from the mealtime altogether that disruptions become disruptive. For example, the mother might receive an important call from

work that prompts her to leave the meal and significantly disrupts both the structural configuration and functional relationships of the family system. Therefore, disruptions are a violation of a collective familial expectation that consequently negatively impacts the functional quality of the family system. Here, we briefly explore disruptions in the form of a violation of conversational norms and a violation of roles in the family system. As a system that is self-adapting and self-reorganizing (Cox & Paley, 1997), the family system must work to manage and regulate these disruptions to achieve a new equilibrium. The effectiveness with which the authority figures (i.e., the parents), and not the children, do so may function to demonstrate behaviors and communicate values that come to provide the framework for appropriate socioemotional and behavioral development.

Although most external disruptions (e.g., a phone call from work) can only be minimally controlled for, part of the function of the family system is to deal with controllable, internal disruptions (e.g., a child talking over their sibling). As a socialized speech event, the family mealtime – and indeed, all interactions – involves a great deal of conversational turn-taking and informal organization. Even without a prescribed script, families, for the most part, adopt and understand the socially constructed discourse of having one speaker at a time. This principle is an expected facet of family systems that may be stronger with some families than for others. For some families, it may be expected that the mealtime passes mostly in silence, only punctuated by brief moments of instrumental need. For other families, it may be expected that the mealtime involves plenty of overlapping, seemingly unconnected, non-instrumental conversations. The expectation of turn-taking, then, may be a demonstration of an expectation of mutual respect in the family system. This may very well indicate that family members value the space and time that is carved out for the family meal event, and that they respect their own place and each

other's place in the family system. In more optimally functioning families, children come to understand that parents guide the flow of the meal and may even come to expect or rely upon it. Some family members will not tell you about their day unless they are asked to, for example – and when they do, it is expected that other family members listen, or at the very least, not interrupt. Generally, children know what parents are supposed to do and how parents are supposed to behave; children, too, function under the same internalized expectations. When these expectations are violated by disruptions or interruptions, they, in some ways, communicate a lack of mutual respect for each other's time and place in the family system. While interrupting another family member suggests some lack of this understanding and expectation, managing unexpected disruptions coaches and models respectful behavior, respectful interactions, and perhaps even a respectful representation of other family members; indeed, "[t]urn-taking results in continuous, structured conversations that provide information-rich learning opportunities" (Bohn et al., 2024, p. 1256). General respect for each other and for the family dynamic may effectively be a model for behavioral conduct and foster positive social adaptation. Children who respect expectations and are in turn respected by the family system may very well be better adjusted to regulate their own emotional states, inhibit their own impulses, and therefore may be less likely to exhibit behaviors consonant with conduct symptoms. In summary, there may be two complementary and heavily intertwined mechanisms at work; first, the violation of expectations in disruptive interruptions within turn-taking interactions or a violation in expected parent-child authority patterns in role-reversal dynamics may foster a general lack of respect that may underlie the development of conduct disorder behaviors; second, the greater adjustment to such disruptions suggests an increased ability for the family system to adapt and reorganize the home environment, which may consequently serve to model positive interactions, behaviors, and

perspectives that protect against the incidence and development of conduct disorder behaviors. It is also important to note that it is likely the interface of both meaningful conversations and an increased ability to manage disruptions that promotes a family context that addresses problematic behavior among children in purposeful and respectful ways. After all, the modality of conversations may only be effective in respectful interactions, while respect may indeed foster an environment that allows for meaningful conversations to occur. In this sense, it may be that conduct symptoms and disrespectful behaviors make it more difficult for the family to recover from disruptions. Although regressions suggest a directional effect, it is nevertheless difficult to parse out such directionality in concurrent associations, and here, the family's ability to adjust to disruptions may very well be influenced by the presence of conduct symptoms.

Emotional Symptoms

Our results also suggest that more involvement in the family meal is significantly linked to a greater likelihood of parent-reported Emotional Symptoms. To a certain extent, childhood emotional problems are an expected facet of child development; children may occasionally feel unhappy, downhearted, or even anxious about events or circumstances in their everyday lives. However, it is when these symptoms are unregulated, persist for extended periods, and negatively affect daily functioning that they become problematic. Middle childhood is a particularly salient period to explore emotional problems in the context of the child's relationship with the family. It is a unique transitional period in which the child's self-identity becomes increasingly relational to others (Piaget, 1952), and in which the child begins to become involved in the lives of their peers yet maintains the family as a central unit in their lives and as a strong home base. As children experience new environments and situations, they also experience new emotions that they must learn to manage and regulate; indeed, internalizing symptoms typically

increase during middle childhood (Moss et al., 2006). In doing so, they may seek the help and support of family members by openly talking about their new feelings with their parents. This is likely to engage the parents and the child, and perhaps the whole family, in more open and sensitive family interactions. Naturally, part of these interactions may indeed be the parents attempting to investigate the source of these emotions, especially if these emotions are suspected to be caused by malintent (i.e., getting bullied at school). In this sense, parents too must learn to manage and regulate their child's emotions. The period of middle childhood is just as much a transitory period for the family as it is for the child. Because the family system is self-stabilizing and self-organizing (Cox & Paley, 1997), such changes in the family system must be accounted for; the family system must attempt to adapt and establish new patterns in the face of this transition. However, systems theory suggests that "these new patterns are more complex and differentiated… [and] are not necessarily more stable systems" (Cox & Paley, 1997, p. 251). The family system, in the face of transition into relatively normal emotionality in middle childhood, may indeed become less suited to appropriately and effectively address these emotions.

If the family system is initially unsuccessful or ineffective at appropriately addressing the child's emotions, they may inadvertently try to continue to do so in an overly intrusive manner. Parents may force discussions about emotions, and the child may develop even further resentment, avoidance, or even volatility. The relationship between increased emotionality and increased or inappropriate family involvement, then, may be the result of a snowball effect in which a family system fails to properly address a child's emotionality, fostering further emotionality that the family system becomes even more increasingly unable to handle. These results, then, may suggest that middle childhood is a noticeable transitory phase full of adjustment of both the child and the family, and therefore provide a more prominent statistical

relationship. Although regression suggests direction, it is important to note that direction is only implied in order to explore its effects over and above dyadic synchrony.

It is also important to note that childhood emotional problems in this study are reported by parents and not the child themselves. Therefore, it is the parent's perception of emotional problems that is found to be significantly predicted by increased family involvement. It may be, then, that families marked by more emotional involvement and sensitivity with each other may be more prone to focusing on the child's emotions, and thus, parents may be more likely to report emotionality in an inflated manner. However, research has shown a variety of mixed results in parental and external reporting of childhood development. Reports from mothers and teachers show limited agreement in the reporting of the incidence of internalizing symptoms (Achenbach et al., 1987). Naturally, children are able to more accurately report on their own internalizing symptoms during middle childhood than parents are (Moss et al., 2006). The inherent nature of internalizing symptoms as well as the child's reluctance to share internalizing symptoms with family members makes it very difficult for parents to accurately identify their child's emotional problems.

Peer Problems

Our results also suggest that increased parental authority in the mealtime is inversely associated to a lower likelihood of developing parent-reported Peer Problems. Here, it should first be noted that the construct of Peer Problems does not refer to an externalizing difficulty, but rather assesses an internalized difficulty in the child with regards to making, developing, and maintaining friendships, as well as their experience in dealing with external peer influences (i.e., bullying, peer pressure, etc.) and a lack of peer support (i.e., loneliness). It should also be reminded that the Authority factor was created as a combination of the

Parenting/Teaching/Supervision and Adult in Charge factors and therefore encompasses, at the very least, these dimensions.

As a relational context, the family meal provides ample opportunity for the family system to teach politeness and appropriate behavior, demonstrate interactional goals in a variety of situations without serious negative consequences, exemplify cultural norms, and exercise pragmatism; it is where families communicate and socialize. Families come to the dinner table to talk about their day and get informed about each other's lives. These conversations of immediate concern (i.e., thematic frames that relate to family matters in the here and now; Blum-Kulka, 1997) typically require some form of entry, especially for children. For example, it may be inappropriate for a child to blurt out a summary of his day, but instead he will likely be prompted by a parent to do so (e.g., "What did you do in school today?"); "it is the adults who dominate the talk agenda" and "children are granted participation rights" (Blum-Kulka, 1997, p. 59, p. 58). Unlike other situational/instrumental (e.g., "Please pass the salt.") or non-immediate (e.g., "Back in my day, we had to walk through a snowstorm to get to school – uphill both ways.") thematic frames, immediate thematic frames (e.g., "Tell me about your day.") require the parent to control and manage discourse. Because these types of conversations take up over one-third of family mealtimes (Blum-Kulka, 1997), parents spend a great deal of time assuming the role of discussion leader and coherence judge, promoting and fostering further conversation, while children accommodate more cooperative roles such as information-giver and contributor.

This highly socialized environment may thus model important social and emotional skills that prevent children from experiencing peer relationship problems; indeed, it is suggested that "providing more opportunities for children to occupy center stage at dinner allows both more room for children to develop discursive skills under adult guidance and more opportunity for

adults to exercise their power" (Blum-Kulka, 1997, p. 68). Children may use family socialization as the base from which to model their own interactions, allowing them to better engage with their own peers. Additionally, having a parent demonstrably take charge in the family system may very well model confident behavior for the child's own relationships.

Naturally, the conceptualization of authority presumes a power dynamic; it should be noted, then, that our results are shown to be significant over and above measures of dyadic synchrony, which assesses the quality of the parent-child relationship but does not necessarily consider one individual in the dyad as more important than the other individual. In our measure of dyadic synchrony, the parent is evaluated on how well they can directly stimulate and regulate their child's emotional states (LT; Bureau et al., 2014). However, this behavioral paradigm is not a context in which supervision or authority can be expressed. Nevertheless, further research is ultimately required to unravel the mechanism of change in the relationship between increased authority in the family system and decreased peer relationship problems.

Limitations

Of course, this study is not without limitations, and these results should be interpreted with caution. As previously mentioned, our sample size was not representative of most populations outside the Ottawa-Gatineau region. According to reports, the Ottawa-Gatineau region has the highest median annual household income and one of the lowest measures of income-inequality among Canadian provinces (Statistics Canada, 2024; The Conference Board of Canada, 2016). Lastly, our sample's need for intact biparental heterosexual families failed to represent approximately 0.8% of same-sex couples, approximately 16.3% of lone-parent families, and approximately 12.6% of stepfamilies, and may exclude some of the approximately 4.8% of households with a grandparent, as of 2011 (Statistics Canada, 2011).

Our greatest limitation, however, is our relatively small sample size of 71 families. This smaller sample size limited our statistical power and therefore our analyses. This study would have benefitted from structural equation modeling (SEM) that would have allowed the simultaneous analysis of our regressions. Regressions are limited in their ability to accurately account for multiple predictors at once and may therefore leave some effects unexplained (Crowley & Fan, 1997). Conceptually, this study relies on the analysis of multivariate predictors – mother-child dyadic synchrony, father-child dyadic synchrony, and dimensions of family functioning – which are better estimated in a single structural equation model than in sequential regression. Because SEM allows for the simultaneous estimation of multiple predictors in a series of regression equations, it would have been the ideal analysis in this study. However, due to our small sample size, structural equation modeling would not have been possible, since SEM typically requires much larger sample sizes to provide stability in estimation (Kline, 2016).

Additionally, our small sample size also limited the dimensionality in our primary measure of family functioning quality. In supplementary material provided to the researchers, Kiser and colleagues (2010) outline an eight-factor solution in their development of the Family Mealtime Q-Sort. However, three of these factors were extremely limited in their reliability and variance that they were statistically unable to properly estimate regression relationships. Therefore, the decision was made to composite Parenting/Teaching/Supervision and Adult in Charge factors into a new single Authority factor and eliminate the Problem Solving factor. Here, a larger sample size would have contributed to an increase in variance in these factors, and they likely would have been kept as is and thus allowed for more defined relationships.

Rather than predict over and above preschool attachments, which have already been extensively explored in relation to socioemotional and behavioral outcomes (e.g., Badovinac et

al., 2021; Deneault et al., 2022), this study predicted over and above measures of mother-child and father-child dyadic synchrony. This was done particularly due to the need for concurrent middle childhood measures. In this study, socioemotional and behavioral outcomes measured by the Strengths & Difficulties Questionnaire (SDQ; Goodman, 1997) and the Dominic-Interactive (Valla et al., 2001), as well as family functioning at mealtime measures, were all measured during the middle childhood phase of data collection. By utilizing concurrent measures of dyadic synchrony, we are better able to ascertain the influence of our predictors. Replacing middle childhood dyadic synchrony with preschool attachment would have introduced the confound of time; rather than predicting over and above just parent-child relationships, this model would be required to predict over and above parent-child relationships and the developmental time course of these relationships since preschool. In this study, dyadic synchrony is used as the metric for parent-child relationship quality specifically in concurrent middle childhood. Dyadic synchrony is not synonymous with attachment, but we face both conceptual and methodological issues in attachment and attachment-related measures for the middle childhood period. Although the modified separation-reunion procedure (Cassidy & Marvin, 1992) is typically considered the gold standard to assess parent-child attachment in preschool, no such gold standard exists for middle childhood (Bosmans & Kerns, 2015). Indeed, a review of attachment measures in middle childhood suggests that attachment during this period is difficult due to the dynamic nature of childhood. Because childhood is a "moving target," it is difficult to pinpoint which features come to 'define' the latent construct of the attachment system in the context of ever-changing and ever-evolving abilities and competencies. Some studies utilize the Kerns Security Scale (KSS; Kerns et al., 1996), which relies on a 1 to 4 rating of 15 self-referential "Some kids… other kids…" statements presented to the child. Another, the Attachment in Middle Childhood

Questionnaire (AMCQ; Marci et al., 2021), is a relatively new 15-item questionnaire that assesses dimensions of security, anxiety, and avoidance. The National Institute for Health and Care Excellence (NICE) (2015) recommend the Childhood Attachment Interview (CAI; Shmueli-Goetz et al., 2001) for middle childhood, because its semi-structured interview format can categorize secure, dismissing, preoccupied, and disorganized attachment dimensions. However, perhaps due to its length, interrater reliability for the CAI is known to be relatively inadequate (Jewell et al., 2019). Perhaps one of the more popular assessments, however, is the Attachment Story Completion Task (ASCT; Bretherton et al., 1990), which provides children in middle childhood with five story stems to which they are invited to complete. Their responses to these story stems is able to categorize secure, avoidant, ambivalent, and disorganized attachment dimensions. However, even the use of the ASCT has not been standardized across studies, and some researchers differ in their content and scoring methods (Jewell et al., 2019). The Middle Childhood Attachment Strategies Coding System (MCAS; Brumariu et al., 2018), however, shows promise. In a sample of 87 children in late middle childhood and their mothers, researchers observed a conflict task in which dyads were tasked to identify and discuss the most important problem in their relationship. According to the ratings of six 9-point scales on the MCAS, middle childhood attachment may be classified according to *secure*, *ambivalent*, *avoidant*, *disorganized-disoriented*, *caregiving/role-confusion*, and *hostile/punitive* dimensions of behavior. Psychometric evidence shows that secure MCAS dimensions were significantly related to higher security on a security scale (Kerns et al., 2001) and story-stem attachment representations (Kerns at al., 2011), while ambivalent, avoidant, and disorganization-disoriented dimensions were similarly linked with their story-stem (Kerns et al., 2011) counterparts. Results also show that most of these MCAS classifications are indeed robustly associated to measures of

social competence and child adjustment in a manner similar to previous literature (e.g., Madigan et al., 2016). The convergent and construct validity of the MCAS suggests that it may be an appropriate measure of middle childhood attachment and should be utilized in subsequent work to further validate and extend its applications. It should be noted, however, that the development of the MCAS occurred after data collection in the current study, and therefore it was not possible for us to incorporate this paradigm in our assessments. Thus, in order to retain the integrity of the middle childhood period, we chose measures of mother-child and father-child dyadic synchrony as predictors of socioemotional and behavioral development. The middle childhood period is ripe with relational information, and although we did not have the means to assess attachment in this period, measures of dyadic synchrony are able to capture more general facets of the parent-child relationship.

The dyadic synchrony that is assessed in the Laughing Task is a result of a very specific type of relationship quality; this does not, however, discount the relational information that is provided. Both mothers and fathers engage in playful interactions that properly activate the arousal system and elicit laughter that as a whole, becomes indicative of parent-child relationship quality – just a specific type of relationship quality. Its limitation is its specific modality and context, but as Bureau and colleagues (2014) suggest, the Laughing Task should be complemented by other measures such as the Risky Situation (RS; Paquette & Bigras, 2010) in order "to obtain a more comprehensive assessment of the [parent]-child relationship" (p. 491). Indeed, it may be prudent to explore the Laughing Task in complement to the MCAS measure (Kerns et al., 2018) as well, in order to further expand the use of both assessments, particularly for the evaluation of father-child relationship quality. Due to the unavailability of middle childhood attachment assessments, as well as the benefits of being able to evaluate both mother-

child and father-child relationship quality, the use of the Laughing Task paradigm in measuring dyadic synchrony was useful in our analysis.

In an effort to provide comparable results with previous similar literature (e.g., Badovinac et al., 2021; Deneault et al., 2022), our outcomes were assessed with both the Strength & Difficulties Questionnaire (SDQ; Goodman, 1997) and the Dominic-Interactive (Valla et al., 2000), which assess relatively common indices of socioemotional and behavioral development. Notably, measures on the Dominic-Interactive were assessed using the child's own self-report, necessitated by scenarios in which the child is presumed to place themselves into. However, there has been shown to be a discrepancy between child self-report and parent-report on various measures of emotional, behavioral, and executive functioning problems, as well as measures of personal resources, with children reporting significantly higher scores on average than their parents (Caqueo-Urizar et al., 2022). Perhaps, then, both children and their parents misrepresent their behaviors. For similar reasons, the average of mothers' and fathers' reports on the Strengths & Difficulties Questionnaire (SDQ; Goodman, 1997) may also fall short in accurately representing emotional problems and peer problems. Although children are indeed better positioned to report on more internalized symptomatology due to their increased sensitivity to their own internal states (Achenbach et al., 1987), behavioral elements are "concrete, observable, severe, and unpleasant" (Caqueo-Urizar et al., 2022, p. 5) and are externally noticeable. Therefore, although the SDQ and Dominic-Interactive vary on their informants, the combination of these measures and the multi-informant approach aids in tempering these reports.

Lastly, the relationship between the family system and our measures of socioemotional and behavioral development in this study was done namely to keep in line with attachment

literature. Much of the parent-child literature explicates socioemotional and behavioral development, as well as other similar outcomes, because they cover a broad range of childhood development and are typically focused on identifying possible internalizing or externalizing problems so that they may be addressed sooner in childhood rather than later. Indeed, these outcomes are typically explored in connection to attachment (e.g., Badovinac et al., 2020; Deneault at al., 2022). Because this study is conceptually adjacent to this line of thinking, the SDQ (Goodman, 1997) and the Dominic-Interactive (Valla et al., 2000) were used in an effort to extend this long history of existing literature. Although useful in relation to the large body of empirical work that also utilizes these and other outcomes, these measures ultimately have limited theoretical relation to the foundations of Family Systems Theory that is core to this thesis. These particular outcomes reference only the child themselves and not the child's relationships. Some indices are certainly likely to influence the child's ability to interact with others but can only be suggestive of the child's relative success or adaptation in group dynamics. It is wise to not neglect the simple fact that at this age, children also exist outside of the family system; the influence of peer groups in the school environment comes to play increasingly important parts in their lives. Peers comprise a social system that children must effectively navigate. For most children, the quality of their friendships and place among the peer group are critical to their personal socioemotional well-being; at this age, children should not only be not neglected or ostracized, but also popular or at least well-liked by their peer group. As children in middle childhood undergo the transition from the family system to the peer system, the functional quality of the former may indeed inform the latter. Thus, we can delineate two distinct, rarely overlapping, social systems: the family system and the peer group. While the family system is generally non-voluntary, relatively stable, and are typically more vertically

structured, peer groups are generally voluntary, relatively unstable, and are both vertically and horizontally structured (Rubin et al., 2015). By nature, they provide children with unique socialization experiences that contribute to the child's development and adjustment in different ways but ultimately complement and influence each other. Indeed, literature suggests that it is in the appropriate balance of the child's family system and peer system that children thrive (Sabatelli & Anderson, 1991; Parke et al., 2013). Socialization, then, may be the link between the quality of family systems and the quality of peer group systems. Interactions marked by positive tone, the inclusion and involvement of members, or even perhaps the significance of an authority figure able to regulate a clear plan for the peer system may provide the skills to allow the child to create and maintain positive friendships, cooperate efficiently without conflict, or even occupy a leadership role in their peer group. The theory behind this relationship is not so new and researchers have speculated on the nature of this linkage in the literature; however, most use the term "family" loosely, as conceptual models typically only distinguish the influence of the parent as a manager of interaction, a direct instructor, and as a provider of opportunities (Parke et al., 1994). As such, the empirical work to explore the influence of the entire family system has yet to be done. Thus, it is not such a long jump to speculate that the dynamics of one family system may come to influence the dynamics of another peer group system. Future research, then, may provide the necessary rigor to explicate this link.

Conclusion

This study revealed that over and above the quality of dyadic parent-child relationships, dimensions of family functioning in the mealtime setting are indeed able to predict measures of middle childhood socioemotional and behavioral development, especially for conduct symptoms. According to our results, family meals marked with respect and meaningful communication may

scaffold the development of crucial interpersonal skills that buffer the development of problem behavior. Moreover, this study provides additional evidence for the family as a unique, irreducible unit of measurement; it indeed cannot be estimated as a sum of its parts. Thus, further exploration is required to understand other forms and functions of the family system.

General Discussion

To understand the relational and developmental functions of childhood through the lens of only mother-child, father-child, triadic, spousal, coparenting, or even sibling subsystems is to understand only the fragments of a larger family system mosaic. Although decades of literature have outlined particularly compelling findings regarding relational concordance (e.g., Moss et al., 2009) and socioemotional and behavioral developments (e.g., Dagan et al., 2022), the exploration of the singular, indivisible, interactive, relationally contextualized family system provides researchers the opportunity to understand the child's overall network of influence. The family system functions namely to ensure the child's appropriate integration, coherent participation, sensitive acculturation, emotion regulation, and effective socialization, among others (Rothenbuhler, 1998; Rothenbuhler, 2006; Lawrence & Plisco, 2017). Children are an integral – and arguably, a defining (Cigoli & Scabini, 2006) – component of the family system, so it is imperative that they be understood in their lived family system environment.

However, the inherent complexity of family systems has made measurement a particularly precarious task. Researchers often conflate measures of dyadic subsystems or parental self-report as representative of family interactions, and thereby come to "statistically construct" a family system (Minuchin, 1985). Although the call for multi-level family system assessment (Stevenson-Hinde et al., 1987) is a long-standing proposition, many researchers fall into similar methodological trappings in that they rely on self-report or mother-child interactions as the proxy for family system quality (e.g., Pu & Rodriguez, 2023). To address this systemic conceptualization, this thesis provides the added benefit of an observational, relationally contextualized family system assessment, and therefore contextualizes child development from preschool to middle childhood as a function of family system quality.

The first study of this thesis showed that children's relational representations in middle childhood are moderated by preschool-aged insecure parent-child attachments and overall family functioning, as well as the different and complementary parental roles and responsibilities that parents occupy in the family mealtime system. That these results outline specific and separate moderating associations for mothers, but not fathers, suggests that children carry different representations for each parent, and that the effect that the family system has on these relationships, too, is different. These results contrast with the maternal monotropy hypothesis which outlines only the mother as an influential attachment figure, as well as a more generalized perspective typically constituted in representational measures (e.g., MSSB; Bretherton et al., 1990) in which mother-child and father-child representational models are considered as a single more general attachment representation. Rather, these findings suggest that this is not the case, at least at this age. Therefore, this study lends credence to the more updated independence and integrative hypotheses, in which the framework of attachment is supported by individual and complementary relationships with each parent; in other words, one parent is not subsumed by or considered more important than the other, and both parents have important roles to play.

Our primary moderation findings in this study describes an effect in which more optimal family functioning in fact strengthens the association between more negative representations, but only for mother-child relationships. As is suggested by our results, negative relational representations may indeed be highlighted against the context of more optimally functioning family systems. These results do not necessarily align with our hypotheses that more optimal family functioning may buffer negative representations, and instead suggest that the relational function of the parent-child unit may be better evaluated against the context of the family system. Indeed, it is perhaps not as simple as appearing to be more or less insecure in the context of less

or more optimal family contexts, respectively, but rather that these contexts color the interpretation of these relationships altogether. Otherwise seemingly low-quality or insecure parent-child relationships may in fact change their meaning in the context of a similarly low-quality family system, while they may indeed similarly change their meaning in the context of a high-quality family system. The child may inflate, overstress, or amplify an insecure parent-child relationship if all other family relationships in the family system are otherwise positive. Beyond the insecure relationship itself, the child must now try to understand why they and they alone have a poor relationship with the parent while everyone else seems to be doing well. Thus, the meaning of the parent-child relationship is uniquely colored by the quality of the family system; the family system is the proverbial backdrop from which these interpretations are modified. These findings are important to extending our understanding of attachment theory, as it proposes that even dyadic perspectives of attachment security and insecurity may take on different meanings altogether when they are placed in the context within which they occur.

Our primary correlational analyses do, in part, align with previous work that suggests more optimal family systems marked by more coherent, reciprocal, and emotionally open interactions are related to more confident representations (Dubois-Comtois & Moss, 2008). While Dubois-Comtois & colleagues (2008) certainly describe family interactions as being significantly positively associated with children's concurrent attachment representations to the mother, our correlational findings find some similarities but with father-child attachments and representations. Although our measures and analyses are not congruent with those used by Dubois-Comtois & colleagues (2008), and therefore not directly comparable, our correlations do find significant associations between more secure father-child attachments and more positive

dimensions of family functioning quality. In a sense, this study complements and extends previous work by providing an important piece of the family systems puzzle.

And yet, while the father is indeed emphasized, our correlations did not find any significant associations for mother-child attachments or representations to measures of family functioning quality. This, however, may be a reflection of the labor necessary to successfully conduct and complete the mealtime event. Because the family meal is a construction of time that must be planned and executed – even informally – mom may do most of the logistical heavy lifting with regards to such planning and execution, while dad may do most of the interpersonal heavy lifting with regards to communication; fathers may indeed carry a more significant load when it comes to talking and interacting in the family system. At least in our own anecdotal observations, fathers were able to carry the mealtime conversation, demonstrating their ability to lead and engage in meaningful conversations. In the following extract of a family in our sample, the father initiates a conversation about a speech that their son (age 9) must present at school the next day and engages in most of the interaction with him.

1	Father	So, how's your speech coming along? Your lines –
2	Boy	I know – um, I know a couple –
3	Father	I don't think you have to really memorize it.
4	Boy	No, you can just look at the cards, but you can just say it, like – remember it.
5	Father	Yeah, it's public speaking.
6	Boy	Yeah.
7	Father	But look at the crowd when you're talking.
8	Boy	Or not! Pretend you're looking at them. Like you're looking at someone –
9	Father	Oh, look past them?
10	Boy	Yeah.
11	Father	Yeah, yeah, okay! I guess you can do that.
12	Mother	Pretend they're – like mommy said?
13	Boy	Yeah. Did you say that?! Mr. [HIDDEN] said that.
14	Mother	Remember what I said?
15	Boy	No.
16	Mother	Oh.

17	Boy	Oh yeah, huh. Pretend everyone was wearing underwear.
18	Father	Oh yeah. That's the whole trick. That's an old trick they used to say.
19	Boy	Really?
20	Father	Yeah.
21	Boy	Does it work?
22	Father	I don't know!

This segment of conversation is more or less typical of the way families behaved in our observations. Here, the father's initiations in turns 1 and 7 function to set the topical agenda, demand attention, and prompt further elaboration from the child. Meanwhile, the mother's interjections in turns 12 and 14 are relatively closed questions that require minimal response from the child and are therefore short-lived. Lastly, the father's contribution in turn 18 brings the conversation back to a structure that the child is able to elaborate upon and question in turns 19 and 21. This brief exchange also demonstrates that the father's initiation of the topic at hand is in regards to an important and meaningful upcoming event for the child. And while both parents provide advice and levity to the situation in a positive manner, it is the father's contributions that structurally lend to further dialogue and stylistically demand a sense of conversational control, at least in this excerpt.

However, it is not lost upon us that this particular division of roles and conversational structure in the mealtime event is perhaps a remnant of the post-WWII perspective of families. Despite our advancements in equity, it is perhaps the relative recency of the mealtime as a tradition (Sharif et al., 2017) that has continued to inform these behaviors, at least within our biparental, intact, heterosexual families. It remains important, then, that future research on family systems considers other forms and expressions of family systems that are not so conventional.

The second study of this thesis showed that dimensions of family functioning are able to predict certain maladaptive emotional and behavioral problems over and above parent-child

dyadic synchrony measures. In particular, our results emphasize that decreased conduct symptoms are closely tied to more optimal family functioning dynamics marked by more meaningful conversations and an increased adjustment to disruptions. It is perhaps no surprise that these dimensions are marked in such a manner, as qualitative research has indeed identified communication, conversation, and socioemotional and behavioral coaching to be some of the most important components of the family meal (Fulkerson et al., 2008; Lawrence & Plisco, 2017; Middleton et al., 2020). In accordance with the principles of Family Systems Theory (Kerr, 1981), it is the family system that functions to augment the quality of the parts from which it is comprised. Just as individual relationships may come to inform the emotional tenor of family system, so too does the functional quality of the family system inform the quality of its members.

Our findings suggest that the family system provides novel predictive effects by accounting for greater variance than dyadic measures alone, supporting the systems level perspective that is central to Family Systems Theory. Here, the gestalt of the family unit challenges the idea that the family system can be statistically constructed from a summation of its parts, and instead, it is the processes of the system as a whole that help to define its quality; the processes of its parts affect the whole and in turn, the whole informs the processes of its parts.

Taking this transactional framework into account, these results align with the existing clinical perspective that family intervention may be the mechanism by which problematic conduct behaviors are addressed and ultimately mitigated, and therefore suggests the possible bidirectionality of this relationship. Indeed, just as more optimal family systems may serve to mitigate the incidence and development of conduct symptoms, so too may children with conduct

symptoms make functional relationships in the family system more difficult. Thus, this study proposes that perhaps addressing the symptoms of the system may work to address those of the individual, as the individual is embedded within and deeply connected to this system; likewise, addressing the symptoms of the individual may pave the way for a family system better suited to address its own needs. It seems, then, that the management and regulation of problem behaviors and problem symptoms is a family effort, and it is therefore important that future research considers family level effects in this manner.

Both studies in this thesis reflect relationships that exemplify the fundamentals of Family Systems Theory. While other studies may use mother-child interactions as a proxy for family functioning (e.g., Pu & Rodriguez, 2023), the first study demonstrates that the family systems perspective provides the necessary context to understand the unique relational representations of children in middle childhood, particularly of the differences between mother-child and father-child representations. These results suggest that children do indeed hold differing and specific representations of mothers and fathers; the father is a unique caregiving figure in the parent-child relationship and in the family system and should be treated as such – and indeed, the uptick of father-child relationships in more recent literature is certainly reflective of this perspective.

More importantly, the family system is the proverbial backdrop upon which these differing mother-child and father-child representations may be better understood. Making meaning of attachments may be in part dependent upon the functional quality of the family system context. Furthermore, while other studies point to the parent-child relationship being associated with other outcome measures (e.g., Dagan et al., 2022), the second study emphasizes the importance of the family system in the development of conduct symptoms and lends even further credence to the conceptualization that the family system is indeed greater – or at least,

different from – the sum of its parts. If these results had simply aligned with previous studies conducted with mother-child or father-child dyads, or even mother-father-child configurations – but with greater significance – it would imply that the family system can theoretically be estimated as just a sum of its own subsystems; its effects would be amplified by simply adding more to the system. In that sense, "statistically constructing" a family system would be technically possible but runs antithetical to the notion of systems theory.

Therefore, the results of this thesis suggest that the family system is different from a simple construction of subsystems, and that the family system is a different unit of measurement altogether. This notion is consistent with general systems theory and Family Systems Theory (Bowen, 1974; Cox & Paley, 1997) in that the family system is one that is original, unique, and irreducible.

Reflections and Limitations

Several issues remain that limit the overall interpretability of our findings. The most significant limitation in this thesis is its small sample size, increasing the possibility for Type II Errors and limiting the statistical power necessary to detect smaller sensitive effects. In other words, analyses in both studies may have declared some relationships as not significant that may indeed be significant. In the first study of this thesis, significant moderating effects were found for the association between mother-child ambivalent, disorganized, and controlling-caregiving attachments and relational representations in middle childhood, but no such significant moderating effects were found for father-child associations. It is unusual that this effect is not present for the father, given that primary correlational analyses indeed link father-child attachments to positive, secure, and negative relational representations. The presence of correlational associations but the absence of moderating associations, then, may very well be a

reflection of the limited power afforded by our small sample size. In the second study of this thesis, the development of conduct symptoms was not related to other dimensions of family functioning in mealtime interactions such as positive tone. Our analyses suggest that the dimension of positive tone loads the highest onto the latent construct of overall family functioning, but was not found to be a significant predictor in the development and incidence of conduct symptoms. The unlikeliness of this finding may similarly be a reflection of this sample's limited power.

The limited representativity of this sample also extends to the definition of family that came to inform our methodology. Both studies necessitated the investigation of heterosexual, biparental, intact, and relatively immobile families over a five-year period; as such, we are limited to interpretations among only these types of families. The demographic characteristics of this sample suggest a relative homogeneity in comparison to the variety of family structures and compositions that exist.

Indeed, significant attention has been given to the notion that grandparents occupy distinct and important roles in the family system (Duflos & Giraudeau, 2022). Young children may benefit socially, cognitively, and emotionally from the added care, play, affection, and overall stimulation provided by the grandparents (e.g., Clarke-Stewart, 1978; Parke & Tinsley, 1981; Power & Parke, 1982). This characteristically differs from the role of the parents because grandparents are ultimately not responsible for the child's upbringing; although they provide support, advice, wisdom, and maybe even friendship, they may not directly participate in childrearing activities. Thus, grandparents tend to be far laxer and more permissive in enforcing rules or dealing punishment (Viguer et al., 2010). This unique contribution is an important one to consider, as research has shown that the proportion of children under the age of 14 living with at

least one grandparent has risen in Canada from 3.3% in 2001 to 9% in 2021 (Statistics Canada, 2022). Grandparents in multigenerational households are likely to share a variety of experiences with the family such as mealtime, and characteristically contribute to the make-up of the family's emotional tenor. Therefore, they too may play an important role in the functional quality of the family system and consequently, to the child's development.

The need for intact families across assessments also namely excluded non-intact families and particularly, families with stepparents or multiple caregivers beyond the biological mother and father. The presence of a stepparent suggests that the parental role may be shared by several figures with whom the child must adjust to and possibly develop a new and unique history of interactions with that shape a distinct relationship. The child's relationship to the stepfather, for example, is not synonymous with their relationship to the biological father simply because they both occupy a "paternal" role. Indeed, in the circumstances of divorce, the cultural likelihood of maternal custody, and the resultant absence of the biological father in daily interactions, the stepfather and the biological father may represent contrastive relationships for the child; the biological father may come to be represented negatively namely because of these circumstances (i.e., "He left us.") while the stepfather may very well be represented positively for the same reason (i.e., "This new guy supports me."). This particular vignette suggests that the quality of the child's relationships and their development are hugely informed by the structure of the family system and the dynamics this structure may bring about. We emphasize, then, the importance of future research that seeks to understand the functional quality of more complex family systems.

In the same vein, the non-clinical characteristics of our sample simply suggest that most – if not, all – of our families were indeed psychologically healthy and more-or-less optimally functional to begin with. That we had to distribute functional quality along the Family Mealtime

Q-Sort metric may have exaggerated or artificially inflated relatively normal functional family processes to the point of being classified as low-functioning; however, families deemed "low-quality" in this thesis may realistically be doing well. Furthermore, given the paradox of assessing socioemotional and behavioral difficulties among relatively psychologically healthy families, limited variability in this sense may have been unable to reveal significant associations. This limitation of functional quality across our sample therefore limits the extension of our findings to more clinical representations of family systems.

Efforts have been made in an attempt to minimize the inflation of an artificially constructed ideal of family functioning. Researchers have asked participating mothers, fathers, and children to report on both lived and ideal constructs of family functioning (e.g., Baxter & Pederson, 2013; Tsamparli & Halios, 2019); essentially, family members report on what their functional quality is like at the moment of assessment, but also what they would like their functional quality to be like. By doing so, the discrepancy between lived and ideal reports estimates their functional quality. Although this is beneficial in reducing methodological differences of having a subjective lived report and an objective ideal report – as is the case with our studies – it may also similarly fall victim to overly critical or overly inflated appraisals of family functioning. Some parents may exaggerate their family's problems and report that their family is, for lack of a better word, terrible. Other parents may want to look better for research purposes and report that their family is far better than it actually is. However, the positioning of this assessment suggests that all reported functional quality is technically suboptimal. After all, families typically believe they can be better, so reports of lived family functioning quality will likely only be negative in the sense that families may believe they function well, but not as well as they could. It would be unlikely for a family to report that they are actually functioning better

than what they idealize. In this thesis, family functioning scores range from -1 to +1, with scores closer to +1 indicating more optimal functional quality and scores closer to -1 indicating less optimal functional quality. This does not lend well to statistical binning in the way that previous studies using family meal frequency have binned low-frequency and high-frequency families. Therefore, although this is continuous data that functions on a gradation and therefore no clear delineation between definitions of good and bad exists, it is easy to interpret positive values as better and negative values as worse. However, even this approach remains subject to questioning: Is there truly an "optimal" functional quality? Is it achievable? Is there an upper limit to family functioning quality? Does "optimal" suggest a functional quality at a certain point in time? Is it appropriate to assess optimal functioning among families who are dynamic and ever-changing? This thesis defines an "optimal" family functioning according to the methodology of the Family Mealtime Q-Sort (Kiser et al., 2010) and derives a standard that is sociodemographically and culturally representative of our North American Ottawa-Gatineau context. Both the challenge and the benefit with this approach is that each research context must derive an adapted prototypical "optimal" family functioning of their own in accordance with their own norms, standards, and expectations. Because the family meal is a construction of family life, it is, too, a reflection of the context and culture within which family life is embedded. Table manners in deeply traditional Chinese contexts, for example, are informed by respect for seniority and an emphasis on humility and subservience that are perhaps less important in North-American contexts; leaving the table once you have finished your own food may be considered relatively normal or perhaps slightly unconventional in the latter context but may be considered extremely rude or disrespectful in the former context. The flexibility of defining an "optimal"

functioning the Family Mealtime Q-Sort, then, allows for these cultural and contextual nuances to be captured.

In reality, the idea of a singular, static, definitive, perfect, "optimal" family may only be a hypothetical and may never actually be achievable. These questions remain far beyond the scope of this thesis and instead belong in the gamut of theoretical questioning; therefore, they are valuable avenues for future consideration. After all, families are self-organizing, self-adapting, living, breathing entities that are not bound by space or time, and certainly not by one mealtime assessment. Nevertheless, the terminology of "optimal" and "functioning" remains contentious, as it is ultimately dependent upon each family.

Methodologically, our own dependence on the family mealtime as representative of family functioning may have hindered our interpretations. Although the family meal is a historied context for family communication and connectedness, we ultimately only observed and evaluated one family meal at one time once. One mealtime only serves as a snapshot of family life and is arguably insufficient to capture the full expression of family functioning. Perhaps the family was having a particularly bad day on the day of assessment, for example, and therefore we may not have assessed an accurate representation of their functioning. Therefore, it is difficult to make any strict conclusions about family functioning.

It is also pertinent to understand the functional goal of the family system; our focus on functioning means little if we are unable to contextualize the purpose of this functioning. Because the family system is one that is a goal-seeking system, it must work towards something – an end – even if that end is adaptive and temporary. For some families, as is likely the case with our families who have young children, the goal of family functioning is childrearing and child development. Of course, the family may hold and orient multiple goals at the same time –

the development of career or the caring of an aging parent may also influence the functional quality of the family system. At this point in the family's history, however, much of the focus is likely given to the child; the child is the center of family life and informs much of the behavior, structural organization and reorganization, rules, roles, and history of the family system. The child may beg to go to Disneyland, for example, so the family system and its parts may task the child with chores to earn this trip or may set boundaries on acceptable grades within school (e.g., "Only if you get straight As!"), while parents assess the family's current status and obligations, agree towards this trajectory, work to arrange the trip's logistics, and drum up excitement so the child may enjoy the trip to the fullest extent, all done in service of adapting to the child's wants and creating a collective family memory that may define individual (i.e., the child's) development, strengthen family ties, and alter the family's unique emotional tenor. Such an effort requires coordination towards a collective goal. This perspective also presumes that the individual goals of each family member align with the collective goal of the family system; if the father says that work is too busy and he cannot take time off for a family vacation, this operation must be adapted or perhaps even terminated altogether. The family unit must be unified in order to address the goal of child development; indeed, some theorists argue that unification is a defining feature of the family system (Cigoli & Scabini, 2006). Furthermore, the family system must be one that self-regulates to account for these changes. If the system were to shut down because one member is of a different agenda, its functional quality is effectively null. The family must have the skills and resources to respond to a variety of circumstances that it will ultimately encounter. If we hold this perspective, the quality of the family system *is* its quality in child development.

Just as there are different goals of family systems, there too are different forms and expressions of family functioning that come to be informed by external influences. Indeed, the conditions of the mealtime environment are themselves deeply embedded in a sociocultural context. Therefore, the manner in which families communicate information and the significance of relationships – even the behaviors of eating – are part of a culture that permeates and informs all aspects of family life. Cross-cultural research has shown that in comparison to more urbanized families in Argentina, Germany, and Japan, more rural families in Ecuador and Brazil were "characterized by overall less talk, a higher proportion of child- compared to parental-talk, [] fewer gestures…. [and] fewer themes" in mother-father-child mealtime conversations (Bohn et al., 2024, p. 1263). Researchers suggest this may indeed be reflective of norms, values, and beliefs surrounding commensality, as it is reported that meals are supposed to be taken in silence for some rural communities in Ecuador (Sánchez-Parga, 2010), while meals in Germany and Argentina are communication events (Aguirre, 2016; Danesi, 2018) more in line with our own understanding of mealtimes (Middleton et al., 2020). Cultural norms, then, seem to affect the frequency and agency of utterances in the mealtime event, at least in these specific cultural contexts.

Furthermore, the mealtime is reflective of what individuals communicate about. Indeed, research completed among Jewish American families exploring the thematic frames of mothers and fathers suggests that the conversational topics brought up by fathers typically revolves around sports, science, or even politics, while mothers typically only responded to queries about food (Blum-Kulka, 1997). Moreover, among Jewish American families in particular, this study found that in the case of mothers introducing topics, although mothers raised almost twice as many topics as men, nearly half of their topics failed to take hold in conversation; meanwhile,

topics raised by fathers were almost always accepted. In contrast, research among Israeli families shows that mothers and fathers seem to share the topical load equally, both being "active in controlling children and managing dinner within the instrumental frame, in eliciting from and sharing family news with their children and spouse, and in raising topics of no immediate concern" (Blum-Kulka, 1997, p. 83). Furthermore, food-related conversations are more prominent among Israeli families, and are shared among both mothers and fathers, especially because fathers participate more in cooking than their Jewish American counterparts. The content of conversations is perhaps just as important as the manner in which families converse; however, it is evident that culture plays a crucial and undeniable role in informing the content of conversations, which in turn significantly affects the way in which family systems communicate. Fathers in upper-middle class North American families may not significantly participate in cooking, for example, and may therefore be less likely to bring up food-related thematic frames of conversation with which they are unfamiliar with. Children, too, relegate certain topics of conversation to the parent with perceived authority on the matter. In one of the Jewish American families studied, the child's queries about a math problem, for example, are conversationally directed to the father, as the child believes the father has the knowledge or expertise to help, regardless of his actual skill, despite his failed attempts, and even despite the mother's offers to provide her solution (Blum-Kulka, 1997). However, this thesis did not account for these influences; rather than consider the sociocultural context to which the family belongs to, we considered the family system as the context to which family members belong to.

In the same vein, the influence of even larger macrosystem and chronosystem influences of societal norms over time (Bronfenbrenner, 1979) may also come to impact the practice of family meals. Our results show that mothers and fathers play distinct and contemporary roles in

the family mealtime setting. These findings not only echo previous research that suggests it is parental complementary roles that contribute to child development (Gaumon & Paquette, 2013; Dagan et al., 2022), but also suggest that there is an increased saliency of these complementary roles specifically in the mealtime setting. Although the current zeitgeist emphasizes the equality and equity of maternal and paternal roles, the relative recency of family mealtimes as an institution (Sharif et al., 2017) suggests it may still carry historically gendered remnants of a division of roles and labor between mothers and fathers that may actually reinforce stereotypical gender roles, power dynamics, and societal norms – especially among our heteronormative sample. The prevailing heteronormative perspective exists even beyond the mealtime event and extends to general family dynamics as well. In fact, even despite long-standing theoretical literature emphasizing the importance of other family members (Bowlby, 1973), the mother as a caregiver has been given nearly all the attention in attachment literature. While the mother is often lauded as the primary attachment figure, the father has – until recently – been painted as secondary to the mother or perhaps disregarded altogether. This notion was largely informed by the sociocultural norms of the late-20th-century. Even as late as 1960, a painting by Fernando Botero called Family Scene (1960) was deemed subversive namely because of its depiction of a family in which the mother stands tall and authoritative over her family while the father sits comfortably in a chair, nurturing the young son. By completely inverting the expected gender norms, we are afforded yet another stark reminder of just how recent these norms have been present in our history. And although current sociocultural norms have largely veered away from heteronormative standards, it is reasonable that some of its influence remains in families today.

It may be pertinent, then, to discuss the relevance and utility of the family mealtime. The family meal is a particularly interesting context, as it is, according to our results, an environment

in which the father may be more responsible for the relational functions of the family system while the mother may be more responsible for the labor specific to the planning and execution of the family meal event. Furthermore, although not particularly evident among families in this thesis, the increasing presence of screens – by both parents and children – during routine eating and sleeping activities (Sebben et al., 2024) may alleviate the burden of interaction altogether and entirely distort our interpretations. The behavior of commensality is constantly responding and adapting to the world; as these routine constructions help to organize life, reflect the sociocultural context within which they are embedded, and define meaning for family systems, we emphasize that it is necessary that in future research, different forms and expressions of family life, identity, and composition are thoroughly considered and well understood.

Although alternative constructions of family time rarely offer such a naturalistic and informal perspective of the family system as the family meal does, other more intentional and formal constructions of family time may be used. Researchers, then, may wish to move away from the family meal as a context for family functioning and employ the use of family game night, for example. As a more structured environment, game night may provide more equitable opportunities for mothers and fathers to exercise their relational functions; however, depending on the game, game night is also subject to the relational functions of competition, deceit, and the presence of a clear and achievable goal (i.e., to win) that are otherwise not present in the family meal.

Although much of this discussion has focused on parents in the family system, so too do the children's own characteristics and expressions come to play a significant role in defining family functioning and relational functions. For example, boys and girls behave differently, are raised differently, have different expectations, have different tolerances and allowances in the

family dynamic, have different goals and aims, and of course, have different relationships to their parents. Literature suggests that fathers are far more physical with their sons than with their daughters (e.g., Hazen et al., 2010), or that they may be more nurturing with their daughters (i.e., the "daddy-daughter" relationship) than with their sons (Foxworth et al., 2007). Thus, boys may act and behave in certain ways if they have a comfortable relationship with their father, which may not translate to their relationship with their mother or in the family dynamic. Furthermore, considering a significant percentage of our families had more than one child (n = 56, 78.9%), the manner in which children interact with their siblings may also be influenced by gender differences. Research has shown that in a prosocial sharing paradigm, 6-year-old "girls with older sisters showed particularly high rates of sharing" that were significant in comparison to other sibling gender compositions such as boy-older brother, girl-older brother, and boy-older sister (White et al., 2014, p. 192), which again, may reflect differing socialization practices. Differential parental treatment may also be a reflection of age differences between siblings, as well; compared to older siblings, negative emotionality in the younger sibling has been linked to more controlling negative maternal behaviors and more positive responsive paternal behaviors (Brody et al., 1992). Therefore, certain facets of family functioning may be emphasized over others simply due to gender or age differences between siblings, and highlights a need for further research directed specifically at these characteristics in the context of the family system functioning.

Implications and Future Directions

Nevertheless, this thesis offers significant contributions to the existing understanding of family systems, relational functions, and socioemotional and behavioral development. In line with the attachment network framework emphasized in theoretical (Dagan & Sagi-Schwartz,

2018, 2021) and empirical (Deneault et al., 2022) literature, this thesis echoes the importance of the inclusion of fathers as a unique influence in the family system. The specific use of the CARTS assessment in this thesis outlines that fathers occupy a significant and complementary role in the family system that may be expressed differently in certain contexts and circumstances such as the family meal. Therefore, fathers cannot be subsumed by mothers or indeed ignored altogether, but rather, considered in their own right as a functional component in the identity and emotional tenor of the family system. The benefit of the CARTS (Frewen et al., 2013) is that it specifies the child's relationships to the mother and father as separate. In doll-play assessments, representations of relationships to parents are generalized as long as a resolution to a scenario (e.g., the "hurt knee" scenario) is provided, regardless of who may have aided in this resolution. In other words, as long as the child resolves a scenario, doll-play assessments typically do not discriminate between mothers and fathers. The CARTS assessment, and consequently, the results from our first study, challenge these generalized representations, and reveals that children do represent the mother and father differently. More importantly, our findings align with both attachment theory (Bowlby, 1969/1982, 1973, 1980) and Family Systems Theory (Bowen, 1974; Kerr, 1981) and suggest that these representations are themselves represented differently in the context of the family system; the child perceives differences between mothers and fathers in their own representations, as well as perceives differences in these representations in and out of the family context. The family system is the context by which children can come to evaluate their relational quality with the mother and father. Notably, this research highlights that the quality of the family context can both camouflage or highlight the quality of the child's own relationships; respectively, negative parent-child relational representations may be considered relatively normal in less optimal family systems, while they may be more evident in the context of more optimal

family systems. Overall, these findings provide important conceptual and empirical foundations to interventions that target parent-child relationships. Not only is the inclusion of fathers promoted, the quality of the family system to color parent-child relationships is emphasized. Even "family systems" consisting of a single mother and an only child benefit from the family systems framework. Although dyadic perspectives may seem sufficient to address this system, there is indeed a larger, more implicit family system present. While dyadic interventions may focus solely on the mother and child, interventions informed by a family systems framework may address the cause of the father's absence (e.g., divorce, death), the manner in which this absence influences the mother-child bond (e.g., feelings of alienation or resentment), or perhaps even the reason for the child's lack of siblings (e.g., unplanned pregnancy) and the mother's response (e.g., overprotective). Of course, this is a very specific vignette, but it illustrates that Family Systems Theory – and indeed, a process-based approach – may be effectively applied to varying forms of family composition. We emphasize that this framework is not necessarily concerned with the composition of the family, but rather, the functional quality of its parts that work to create a unit greater than its sum; it is the quality of the family system that serves to contextualize the relationships between such parts. Although the complexity and richness of the family system is indeed its defining feature and a challenge to assess, this thesis nevertheless provides compelling evidence for measurement at the family system level.

This perspective therefore validates the focus shift towards more comprehensive approaches in the implication of problematic child development indices, especially of conduct symptoms. Literature suggests that family and parenting interventions may be a "potent therapeutic agent for reducing unwanted behaviours and preventing relapse" of conduct behaviors (Diamond et al.,1996; as cited in Woolfenden et al., 2001, p. 3). In review, Henggeler

& Sheidow (2012) identify family-based treatment modalities that have been independently replicated and show sustained effects. For example, multisystemic therapy (MST: Henggeler et al., 2009) interventions show improved family relations, decreased youth behavior and psychiatric symptoms, reduced violent offending, incarceration, and recidivism, reduced youth substance use, reduced short-term out-of-home placements, and decreased externalizing symptoms (Henggeler & Sheidow, 2012). Interestingly, although Bronfenbrenner's socioecological model serves as the theoretical framework for MST and involves factors at the individual, family, peer, school, and community levels, it is the family that is "viewed as critical to all decision making and intervention implementation" (Henggeler & Sheidow, 2012, p. 6). Indeed, part of the goal of MST is to allow caregivers to challenge children in strategic ways that discourage problem behaviors and promote better adaptations. This thinking aligns with the notion that the family meal environment serves as the context in which the family system may effectively challenge and coach children in meaningful ways. Furthermore, although MST does not necessarily specify mothers and fathers in its effectiveness and efficacy, making this distinction may be important, as mothers and fathers may fulfill complementary roles depending upon the conditions of the context, as is suggested by our results. As such, this thesis may shed even further light upon the environments and circumstances in which caregivers may make the most impactful change. Similarly, functional family therapy (FFT; Alexander and Parsons, 1982) interventions show improved family interactions and family engagement, fewer new arrests, decreased recidivism for status offenses, and decreased criminal activity (Henggeler & Sheidow, 2012). These approaches are founded upon foundations of socioecological theory (Bronfenbrenner, 1979) and structural family theories (Minuchin, 1974) designed to restructure and replace maladaptive and dysfunctional patterns of family behavior in the family system that

are central to the theoretical foundations of Family Systems Theory adopted in this thesis. Namely, it is the dysfunction or exaggerations of these patterns that are hypothesized to contribute, in part, to the development of psychological problems (Kerr, 1981). Informed by the premise that the goal of the family system is child development, the methods used in this thesis may serve to help identify these patterns. By discriminating mothers and fathers and specifying the directionality of these relationships (i.e., "to" and "from"), the dysfunctional patterns that lend to psychological problems may be more effectively addressed. This thesis, then, contributes to the foundational knowledge for further interventions, such as the Brief Strategic Family Therapy (BSFT; Szcapocznik et al., 2003), which marries the foundations of MST and FFT into a cohesive model and is designed to target adolescent risk behavior. In virtually complete congruence with the theories of this thesis, BSFT relies on creating better functioning families and emphasizes family connectedness as the conduit for addressing individual and family concerns. The family is a system that contextualizes, fosters, regulates, and modifies family interaction patterns, and in doing so, is able to continuously define and reframe the functional quality of the family system. By shifting the psychological perspective to a family-based approach and understanding that the family is a unique and irreducible unit of measurement, this thesis may come to inform theoretical and practical approaches to addressing relational functions, developmental outcomes, and perhaps intervention initiatives. Going beyond this approach by further contextualizing the family system in the landscape of a strongly rooted sociocultural history and may serve to unearth even more significant implications in future research.

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