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ADOPTIVE PARENTING COGNITIONS, COMPATIBILITY, AND ATTACHMENT
AMONG DOMESTICALLY ADOPTIVE FAMILIES

A Thesis Presented

By

ALBERT Y. H. LO

Submitted to the Graduate School of the
University of Massachusetts Amherst in partial fulfillment
of the requirements for the degree of

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Psychology

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AMONG DOMESTICALLY ADOPTIVE FAMILIES

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ABSTRACT

ADOPTIVE PARENTING COGNITIONS, COMPATIBILITY, AND ATTACHMENT AMONG DOMESTICALLY ADOPTIVE FAMILIES

MAY 2017

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Adoptive families may experience challenges because the parent and child are not biologically related. For example, many adoptive parents realize that their experiences may be different from those of biological parents and may respond to this realization through varying degrees of acknowledging this difference. These thoughts that adoptive parents have about the adoption, or adoptive parenting cognitions, may have implications for adjustment in the adoptive family. Research has been dedicated to examining the relationship between the adoptive parents' level of acknowledgment of differences and child outcomes; however, fewer studies exist on how this acknowledgment affects the parent-child bond. The current study aimed to longitudinally examine the link between adoptive parent's level of acknowledgement of differences and the level of attachment between the adoptive parent and adopted child, as perceived by the adolescent. The study also aimed to examine the potential mediating effects of parent-child compatibility, or the match between characteristics of a child and the parenting style of the parent, on this relationship. Data from the current study originate from the Minnesota/Texas Adoption Research Project. Acknowledgement of differences was measured at Wave 1 when the children were 4 to 12 years old, adolescent-perceived attachment was measured at Wave 2

when the children were 11 to 20 years old, and parent-perceived compatibility was measured at both waves. Acknowledgement of differences was measured using the Kirk Adoption Questionnaire. Parent-perceived compatibility was assessed using a measure derived from combining four subscales of the Parenting Stress Index. Finally, attachment was measured using the Inventory of Parent and Peer Attachment and a subscale from the Parenting Stress Index. Results of the present study indicated that higher levels of acknowledgement of differences predicted higher levels of adolescent-perceived attachment at a later time point in adoptive father-child dyads but not adoptive mother-child dyads. In addition, parent-perceived incompatibility did not partially mediate this relationship for either mothers or fathers. Implications of the results and areas of further research are discussed.

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CHAPTER 1

INTRODUCTION

Estimates from the National Survey of Adoptive Parents (NSAP) indicate that there are approximately 1.8 million adopted children in the United States (Vandivere, Malm, & Radel, 2009). Due to the experiences of adoptive families and the nature of their formation, researchers have long focused on adoption populations. For example, early research focused on how adopted persons differed from nonadopted persons as well as the effects of early adversity, whereas current research has shifted to examining the factors contributing to individual differences in adoption experiences (Palacios & Brodzinsky, 2010).

Many issues explored in the adoption literature concern the genetic differences between adoptive parents and adopted children. Among these issues is the adoptive parents' understanding of their role as adoptive parents in a bionormative society. In the mid-twentieth century, Kirk (1984) provided a conceptual framework for this cognitive process, which he termed acknowledgement of differences. According to Kirk, this involved the adoptive parent's accepting that becoming a parent through adoption is inherently different from becoming a parent biologically. Through multiple studies, Kirk (1984, 1981) provided evidence for a pathway from this acknowledgement to the formation of a trusting relationship between the parent and child. Unfortunately, during the time of Kirk's conceptualization, the field of psychology as a whole was largely uninterested in cognitive aspects of parenting. Instead, emphasis was placed on directly observable parenting phenomena, such as a mother's display of warmth and control (Baumrind, 1967; Baumrind & Black, 1967). In addition, adoption researchers at that

time were generally not interested in parenting challenges unique to adoptive parents. Instead, adoption research was primarily concerned with the psychopathology and academic performance of adopted children and how these children compared to nonadopted individuals (Palacios & Brodzinsky, 2010). According to Palacios and Brodzinsky, it was not until the beginning of the 21st century that the field of adoption shifted its focus to family processes, and researchers gained a renewed interest in Kirk's theories. However, even then, the bulk of the studies inspired by Kirk's theories revolved around adoption-related communication within the family as opposed to cognitive processes (e.g. Brodzinsky, 2006; Wrobel, Kohler, Grotevant, & McRoy, 2003). Thus, to this day, a clear relationship between an adoptive parent's cognitions about adoption and the strength of the parent-child bond has yet to be established.

In recent decades, there has been a surge of interest in parents' mental perceptions and understanding of their children. This increase can be attributed in part to calls in the field to identify stronger predictors of attachment security (van IJzendoorn, 1995). From this focus emerged an interest in parenting cognitions as well as multiple methods of conceptualizing and assessing such cognitions (Shai & Fonagy, 2014; Meins, 1997; Oppenheim & Koren-Karie, 2002). Over the years, research has established that these cognitions have important implications for the parent-child relationship, particularly in the formation of secure attachment (Meins, Fernyhough, Fradley, & Tuckey, 2001; Slade, Grienenberger, Bernbach, Levy, & Locker, 2005; Koren-Karie, Oppenheim, Dolev, Sher, & Etzion-Carasso, 2002). Thus, there now exists a contemporary framework in which adoptive parenting cognitive processes such as those proposed by Kirk may potentially fit.

Another issue rooted in the genetic differences between the adoptive parent and child is the adoptive parent's perception of the compatibility of the relationship. In the context of adoption, parent-perceived compatibility involves a reported match between the parent and the child, with the parent accepting and adapting to whatever physical and behavioral differences that may arise between them. Researchers in the past have hypothesized that an adoptive parent's perception of compatibility depends on the parent's ability to acknowledge the child's adoptive background (Grotevant, McRoy, & Jenkins, 1988). However, specific predictors of compatibility in the adoptive family have yet to be examined.

Our purpose is to establish Kirk's construct of acknowledgement of differences as an adoptive parenting cognition analogous to those that currently exist in the parenting literature. To do so, we plan to accomplish three specific goals. First, we will investigate the components of the acknowledgement of differences construct and the construct of parent-perceived compatibility. Second, we will longitudinally explore the relationship between the parent's acknowledgement of differences (during middle childhood) and the level of attachment between the adoptive parent and adopted child, as perceived by the child (at adolescence). Finally, we will determine whether parent-perceived compatibility mediates the relationship between acknowledgement of differences and attachment.

1.1 Kirk's Social Role Theory

Kirk's (1984) theory on the role that adoptive parents play in a bionormative society, as well as how they approach this role, was developed in the mid-20th century. There was much more secrecy involved in adoption arrangements and adoption in general during this time period than there is today. For example, not only were closed adoptions

much more common, there was also the prevailing idea in the United States that adoptive families should strive to be indistinguishable from nonadoptive families (Kirk & McDaniel, 1984; McRoy, Grotevant, & White, 1988). Consequently, not only was it common for adoptive parents to downplay the fact that the child was adopted, but some parents did not tell their children that they had been adopted. This latter practice was aided by the fact that the overwhelming majority of adoptions were same-race domestic adoptions of infants, and thus many adoptive families could “pass” as nonadoptive families. Thus, Kirk’s social role theory was conceptualized in this context of secrecy and rejection of genetic differences in adoptive families. While extreme presentations of secrecy, such as hiding the adoption from the adopted child, are currently rare, families may still differ on levels to which they acknowledge that the adoption differentiates the family from nonadoptive families. Therefore, it is important to identify the implications of such variations in this acknowledgement.

Consistent with role theory, parents are expected to act in certain ways in order to fulfill the role of a parent. These expectations reflect societal views of how parents should think about and behave towards their children (see Brim, 1957 for review). According to Kirk (1984), adoptive parents undergo role handicaps when confronted with the knowledge that their experiences as an adoptive parent may differ from those of parents with biological children. This handicap comes not only from an uncertainty in the role that the adoptive parent must play in the child’s life but also from the realization that others will view the adoptive parent’s family as being inherently different from (and perhaps less valid than) a family with biological children. Kirk stated that adoptive parents may cope with this handicap by acknowledging this difference to varying

degrees. When adoptive parents have high levels of acknowledgement, they learn to empathize with the adopted child and understand that the child may be struggling with being adopted. This understanding promotes open communication between the parent and the child about the child's adoption because the parent is comfortable with making themselves available to the child for these discussions. Openness in communication allows for the parent and child to share each other's concerns, and trust develops between the parent and the child. However, low levels of acknowledgement prevent open communication about adoption because the communication threatens the adoptive parent's ability to ignore such differences. This eventually strains the relationship between the parent and child because an important fact about their relationship cannot be discussed.

Outcome research on adopted children has largely been dedicated to the communication aspect of Kirk's model. Only a small number of early studies investigated the initial cognitive component of Kirk's Social Role Theory and found limited evidence to support the claim that an acknowledgement of differences is beneficial to both the adopted child and the parent-child bond (Brodzinsky & Reeves, 1987 as cited in Brodzinsky, 1990; Kaye, 1990; Sobol, DeLaney, & Earn, 1994). For example, Kaye (1990) found that high levels of acknowledgement by parents were related to more problems in the adoptive family. Kaye interpreted this as family problems potentially causing extreme acknowledgement of differences. For example, Kaye found that family members potentially attributed parent mental health problems or the adoptees school-related problems to the adoption itself, leading to direct acknowledgement of the family's adoptive status. Similarly, Sobol and colleagues (1994) found an inverse relationship

between adult adoptees' perceptions of parental acknowledgement and retrospective perceived closeness with parents at different stages in life. However, both studies conceptualized parental acknowledgement in indirect ways that may not have reflected Kirk's model. Kaye (1990) coded acknowledgement from behavioral observations of parent-child conversations and private interviews with the parents. However, Kaye found that the questions from the private interviews did not create a coherent and consistent measure of acknowledgement in parents. Sobol and colleagues (1994) measured parental acknowledgment as perceived by adult adoptees. Neither method directly or accurately addressed the parent's cognitive processes and how these processes may influence behavior.

Findings conflicting with Kirk's original model may also be explained by the clinical observations of Brodzinsky and his colleagues. For example, Brodzinsky (1987) hypothesized that the relation between acknowledgement in the parents and positive family outcome may be curvilinear. He observed an extreme level of acknowledgement in adoptive families who had sought clinical help, a level he termed insistence-of-differences. Brodzinsky defined insistence-of-differences as the adoptive parent's placing too much emphasis on the child's biological background, to the degree that the child is not fully integrated into the adoptive family. Brodzinsky suggested that parents may assign blame for adoption-related problems to the child's genetic differences from them, resulting in distancing or conflict between the adoptive parent and the adopted child. In addition, Brodzinsky (1987) suggested that low levels of acknowledgement may not be detrimental until the child is able to comprehend the concept of adoption. He posited that low levels of acknowledgement may in fact be adaptive for the family when the adopted

child is very young in that it helps foster an initial close parent-child relationship. Brodzinsky stated this during a time in which most adoptions were domestic and involved heterosexual couples adopting very young children of the same race. Such initial downplay of differences may not be possible in many more contemporary forms of adoption, such as international adoption, transracial adoption, or adoption by same-sex couples, in which differences are physically obvious. Nevertheless, there exists a need for an in-depth examination of this cognitive construct as well as an examination of the familial outcomes of this construct over time.

1.2 Attachment

Attachment between a parent and child has long been a prominent area of interest in the study of human development due to the notion that high quality attachment is adaptive for the survival and safety of infants (Bowlby, 1982). In his original theory of attachment, Bowlby (1982) emphasized how the quality of the parent-child relationship predicted a number of future outcomes. Bowlby argued that, through interactions with the parent, children develop an internal working model of attachment that involves expectations of the child's own behavior as well as the behavior of the parent. Through her work examining parent-child interactions, Ainsworth (1979) theorized that responsive and sensitive caregiving results in the child developing a working model in which the child trusts that the parent is always available. This trust then forms the basis of a secure attachment (Ainsworth, 1979). Ainsworth (1979) theorized that young children with a secure attachment are able to utilize the caregiver as a secure base as they explore their surroundings. This concept of a secure base continues to be important beyond infancy, as

the child begins to venture further from the parent and develop relationships with others (Ainsworth, 1989).

Decades of findings indicate a strong intergenerational transfer of quality of attachment; that is, a parent's own attachment experiences from childhood predicts the quality of attachment between the parent and his/her own child (see van IJzendoorn, 1995 for review). Due to Ainsworth and colleagues' influential work (Ainsworth, 1979; Ainsworth, Bell, & Stayton, 1971), parental sensitivity and responsiveness had long been considered the central element behind the formation of secure attachment, and multiple studies had sought to replicate her findings (Isabella, 1993; Egeland & Farber, 1984; Raval et al., 2001). However, this claim has been challenged in the past several decades. A number of influential meta-analyses have revealed that sensitivity only accounts for a limited amount of variance in this intergenerational relationship, and the relationship between child attachment (as measured primarily through behavioral observations of parent-child interactions) and sensitivity (as measured by behavioral observations of mothers with their infants as well as interviews and questionnaires with mothers) is in fact not as strong as once thought (De Wolff & van IJzendoorn, 1997; van IJzendoorn, 1995). The findings highlighted the need for examining other parental factors that may explain the formation of secure parent-child attachment (De Wolff & van IJzendoorn, 1997). In response to these revelations, researchers returned to Ainsworth's (1969) initial conceptualization of sensitivity in which she emphasized the importance of a mother being able to "see things from the [child's] point of view" (pg. 2). From this closer examination came a surge of interest in a parent's mental perceptions of a child, or parenting cognitions.

1.3 Parenting Cognitions

Three primary methods of conceptualizing and assessing such cognitions have been established in the literature: mind-mindedness, parental insightfulness, and parental reflective functioning. Mind-mindedness and parental insightfulness both pay tribute to Ainsworth's idea of a parent acknowledging the child's mental processes (Meins, 1997; Oppenheim & Koren-Karie, 2002), whereas parental reflective functioning (Fonagy, Steele, Steele, Moran, & Higgitt, 1991) expands upon the work of Mary Main and the Adult Attachment Interview (George, Kaplan, & Main, 1985).

Mind-mindedness has been defined as a caregiver's ability to view an infant as having her/his own thoughts and mental states (Meins, 1997; Meins et al., 2001). This construct extends beyond a parent's ability to respond to the infant's basic physical and emotional needs and instead depends on the parent being attuned to the mental processes that are the basis of the child's behavior (Meins et al., 2001). Parental insightfulness involves caregivers having the ability to "see things from their child's point of view," along with "insight into the child's motives, a complex view of the child, and openness to new information about the child" (Oppenheim & Koren-Karie, 2002, p. 593). Lastly, parents who display reflective functioning are able to see relationships in terms of the mental states of the individuals involved (Fonagy et al., 1991; Slade et al., 2005). In its original theorization, reflective functioning involved a mother's capacity to accurately understand how the mental states of herself and of others in her own childhood relationships motivated behaviors (Fonagy et al., 1991). It was assumed that this understanding would transfer to the context of the mother and her own child (Fonagy et al., 1991). While these three conceptualizations differ in their origin and exact definition,

they all share a similarity with certain social cognitive aspects of parenting such as role-taking and empathy.

Research has suggested that parenting cognitions may be a key antecedent to attachment, with multiple studies finding concurrent and longitudinal links between these cognitions and child attachment security as measured by the Strange Situation paradigm (Koren-Karie et al., 2002; Meins et al., 2001; Oppenheim, Koren-Karie, Dolev, & Yirmiya, 2012; Slade et al., 2005). More importantly, parenting cognitions have been shown to be stronger predictors of attachment than parental sensitivity (as it is traditionally measured), solidifying their place as essential qualities of the parent-child relationship (Koren-Karie et al., 2002; Meins, 2013; Meins et al., 2012).

In addition, studies have aimed to go beyond the established link by exploring potential pathways. For example, multiple parenting constructs have been found to mediate the relationship between parenting cognitions and attachment, such as parental sensitivity (Laranjo, Bernier, & Meins, 2008; Stacks et al., 2014), interactional synchrony (Lundy, 2003), and inappropriate parenting behaviors (Grienberger, Kelly, & Slade, 2005; Ensink, Normandin, Plamondon, Berthelot, & Fonagy, 2016). Although studies of parenting cognitions typically involve parents of infants, findings indicate that these cognitions continue to have important implications during childhood and adolescence (Benbassat & Priel, 2012; Oppenheim, Goldsmith, & Koren-Karie, 2004, Scopesi, Rosso, Viterbori, & Panchieri 2015). Lastly, findings suggest that parenting cognitions have implications for attachment in adoptive families (Colonnese et al., 2012; Palacios, Román, Moreno, & León, 2009).

Whereas the majority of research on parenting cognitions has focused on mothers, few studies have been conducted to assess the parenting cognitions of fathers. Fathers do display cognitions such as mind-mindedness and reflective functioning and evidence suggests there is a moderate level of agreement between mothers and fathers on measures of mind-mindedness (Arnott & Meins, 2007; Lundy, 2013; Madsen, Lind, & Munck, 2007). In addition, preliminary evidence suggests that high levels of mind-mindedness in fathers, measured by the likelihood of a father making “appropriate” comments about the child’s mental state, longitudinally predict security of attachment between the father and his infant child (Arnott & Meins, 2007, p. 138). However, findings exploring differences between mothers and fathers in displaying parenting cognitions are mixed. For example, some past studies of mind-mindedness and reflective functioning in mothers and fathers have reported no group differences on these constructs (Arnott & Meins, 2007; Lundy, 2013), while others have reported that fathers display significantly lower levels of reflective functioning than mothers (Esbjørn et al., 2013; Lis, Zennaro, & Mazzeschi, 2000). It has been suggested that potential gender differences between parents may be due to socially constructed concepts of masculinity and femininity as well as differing roles men and women play in society (see Benbassat & Priel, 2015 for review). It is also possible that gender differences may be due to differences in roles in the household, as fathers commonly spend less time with their children and have less of a caregiver role than mothers (Pinquart & Sörensen, 2006; Russell & Russell, 1987). Lastly, findings linking parenting cognitions in fathers to parental behaviors have been mixed in comparison to mothers (Lundy, 2003; Stover & Kiselica, 2013). Together, these results suggest that fathers may have more difficulty than mothers in displaying and utilizing

certain parenting cognitions and that more research is needed to establish not only the factors that drive these differences but also the implications of such differences.

Adopted children have commonly been a focus in attachment research because they experience a displacement from their birth parents. This displacement has been hypothesized to predict negative psychosocial outcomes involving future relationships with others (e.g. Collishaw, Maughan, & Pickles, 1998). Although previous research indicates that adopted children are able to form secure attachments with adoptive caregivers, it has been hypothesized that these children may have attachment-related difficulties (van den Dries, Juffer, & van IJzendoorn, 2009; Palacios & Brodzinsky, 2010). One potential barrier to the formation of a secure attachment between an adoptive parent and child involves how adoptive parents view their status as adoptive families. As argued by Kirk (1984), certain adoptive parents may refuse to acknowledge that their parenting experiences will differ from those of biological parents. Because these adoptive parents ignore a very important aspect of the child's history, they are unable to empathize with the child and understand that the child may have their own thoughts and concerns regarding the adoption. This acknowledgement and subsequent empathy, both which are processes that occur within the adoptive parent, fit within the framework of general parenting cognitions.

Similarly to general parenting cognitions, the mental processes outlined by Kirk (1984) involve the social cognitive aspects of role-taking and understanding the child's own views and mental states. The primary difference, of course, lies in the fact that these processes outlined by Kirk are unique to the adoption context. While an important distinction, these adoption specific processes still parallel general parenting cognitions in

multiple ways. For example, Kirk (1984) describes how adoptive parents who are unable to acknowledge differences may be so distracted by their own fears that they misinterpret their adopted child's behaviors. A parent may mistakenly think a child's silence about adoption means that he or she is not concerned with the topic, when in fact the child just does not feel as though the parent is open to such discussions. This idea of understanding the motivations underlying a child's behavior is integral to the conceptualization of mind-mindedness, maternal insightfulness, and reflective functioning (Meins, 1997; Oppenheim & Koren-Karie, 2002; Fonagy et al., 1991).

In addition, Kirk (1984) emphasizes that through acknowledging differences, displaying empathy, and communicating with children about adoption, parents sacrifice their own comfort and feelings of entitlement towards their child in exchange for the well-being of the child and the parent-child relationship. Doing so may be initially distressing for adoptive parents, as they may be forced to face their own challenging and unique role as adoptive parents as well as uncomfortable memories about the adoption process (e.g., grief over infertility, the intrusiveness of the evaluation process, the uncertainties, the waiting, feelings of powerlessness). This same emphasis is seen in findings in which parents high in reflective functioning are more able to not only empathize with a distressed child but also handle their own emotional distress (Rutherford, Goldberg, Luyten, Bridgett, & Mayes, 2013; Rutherford, Booth, Luyten, Bridgett, & Mayes, 2015). Thus, in both instances, parents are able to empathize with the child's needs and place these needs above their own. Given the relationship between parenting cognitions and the formation of secure attachments, these constructs described by Kirk, or adoptive parenting cognitions, may be essential to the attachment

relationship. Thus, it is necessary to examine the relation between adoptive parenting cognitions and attachment.

Most research dedicated to parenting cognitions is concerned with parents displaying these cognitions during the child's infancy (e.g. Koren-Karie et al, 2002; Meins et al., 2001; Slade et al., 2005). Such mentalizing abilities are particularly important at this developmental stage, as parents must be able to accurately read the motives and needs of children who cannot freely communicate their own mental states. In contrast, it is essential to examine an adoptive parent's acknowledgement of differences and associated constructs beyond the child's infancy due to the developmental nature of the child's comprehension of adoption. Although adopted children may refer to themselves as being adopted as early as preschool age, they do not fully understand the circumstances and decisions that surround adoption until middle childhood and adolescence (Brodzinsky, 2011; Brodzinsky, Singer, & Braff, 1984). Adoptive parents may have to adapt their display of acknowledgement of differences to the child's current adoption-related needs (Brodzinsky, 1987). Thus, acknowledgement of differences remains particularly important when children are developing an understanding of adoption and beginning to question aspects of their own adoptions.

1.4 Compatibility in the Adoption Network

In a general context, compatibility in a parent-child relationship stems from a match between the characteristics and behaviors of the child, the parent's parenting behaviors, and the family's social environment (Lamb & Gilbride, 1985). Compatibility or a "match" between the parent and child may arise if the parents are able to adapt their parenting styles to the child's characteristics or behaviors and the child in turn responds

to the parents' behaviors in a way that encourages a continuation in communication. This match allows for effective interactions that are sensitive to the child's needs and promotes the child's development. Incompatibility, on the other hand, may arise if parents are unable to properly adapt their behaviors towards their child's needs and the child is less able to understand the motives and intentions of the parents. The result is less effective communication between the parent and the child (Lamb & Gilbride, 1985).

A parent's perception of a compatible relationship may rely less on an actual similarity between the parent and child and more on the parent's ability to accept the child and adapt their behaviors to the child's needs. This acceptance may be present even if the child is vastly different from the parent in terms of behavior and personality and if the child's achievements and qualities do not meet the parent's expectations. Although not perfectly analogous, an example of parents having expectations of the child that may not be met can be seen in the literature on adoption from foster care. Foster parents commonly care for children whose characteristics are outside of their expectations, and these unrealized expectations may contribute to parenting stress and difficulties (Buehler, Cox, & Cuddeback, 2003; Daniel, 2011; Moyer & Goldberg, 2015). Reports from foster parents suggest that a parent's being able to accept the child regardless of differences contributes to a positive fostering experience for the foster parent (Buehler et al., 2003). In addition, having expectations that are in line with the child's unique situation and needs can be beneficial to the members of the foster or adoptive family (Mariscal, Akin, Lieberman, & Washington, 2015; The AdoptUSKids Research Team & McRoy, 2007).

Adoption introduces an additional factor into the development of a compatible relationship in that adopted children are genetically different from their adoptive parents,

contributing to a possible discrepancy between the physical characteristics and behaviors of the child and the physical characteristics and behaviors of the parent (Grotevant, McRoy, & Jenkins, 1988; Ross, 1995). This difference is illustrated by how correlations on IQ and personality traits between parents and children are substantially lower in adoptive families than in biological families (Scarr & Weinberg, 1983). In addition, adopted children may display higher levels of behavior problems than birth children (Howard, Smith, & Ryan, 2004). Compatibility issues may arise if these behaviors are beyond what the adoptive parent is able to manage (McRoy, Grotevant, & Zurcher, 1988). Thus, the formation of a compatible parent-child relationship may be particularly difficult for adoptive families in that there is less of a basis for match between the parent and child.

The compatibility between adoptive parents and adopted children has important implications for the child's development and the parent-child relationship. Past findings indicate that incompatibility or mismatch between the child's characteristics and the parent's expectancies of the adopted child predict adjustment difficulties and problem behavior in the adopted child (Berry, 1992; Ross, 1995). In addition, difficulties in parent-child compatibility have been linked with increased risk of disruption in adoption (Festinger, 1986, as cited in Festinger, 1990). Concerning the parent-child bond, compatibility as perceived by the adoptive parent positively predicts the level of attachment between the parent and child as perceived by the adopted adolescent (Grotevant, Wrobel, van Dulmen, & McRoy, 2001).

Grotevant, McRoy, and Jenkins (1988) examined parent-perceived compatibility in families whose adopted children had emotional disturbances that were serious enough

to warrant placement in residential treatment centers. The authors found that lack of compatibility was associated with parents placing too much or too little importance on the child's hereditary background. Findings indicated that too much importance resulted in parents laying sole blame for both the child's behavior problems and problems in the parent-child relationship on the child. On the other hand, too little importance resulted in parents denying that their own parenting experiences would be different than those of biological parents, hindering their ability to respond appropriately to the adopted child's unique needs. Grotevant and colleagues noted that placing too little emphasis on the child's hereditary background was congruent with the low levels of acknowledgement of difference detailed in Kirk's theory. Similarly, placing too much importance on hereditary background can be likened to an insistence-on-differences (Brodzinsky, 1987). Thus, the formation of a compatible parent-child relationship may depend on an adoptive parent's cognitive perceptions of the child's adoption.

Adoptive mothers and adoptive fathers may be incongruent in their perception of the compatibility of the relationship, and such differences may be due to mothers and fathers playing different roles in the child's life. For example, mothers typically spend more time and have more of a caregiving role with their children than fathers (Pinquart & Sörensen, 2006; Russell & Russell, 1987). On the other hand, interactions between fathers and their children may be more focused on play (see Lewis & Lamb, 2003 for review). These distinctions potentially contribute to mothers and fathers perceiving the child differently, as they may be exposed to different aspects of the child. Indeed, past findings indicate that mothers and fathers do differ on their reports of multiple child qualities. To begin, mothers tend to note more child behavior problems than fathers

(Christensen, Margolin, & Sullaway, 1992; Luoma, Koivisto, & Tamminen, 2004; Mascendaro, Herman, & Webster-Stratton, 2012). Furthermore, mothers report higher levels of closeness and acceptance for their children than fathers (Driscoll & Pianta, 2011; Putnick et al., 2012). As these qualities may affect an adoptive parent's ability to sense a match between themselves and the adopted child, it will be important to examine parent-perceived compatibility separately for mothers and for fathers. Fortunately, the data set in the current study consists of information from both mothers and fathers, allowing this comparison to be made.

1.5 The Current Study

Few studies have examined the adoptive parents' acknowledgement of differences and its relation to the parent-child bond. Those that have examined this relationship did not directly measure such acknowledgement as an adoptive parent's cognitive processes. In addition, there is a need for research that longitudinally explores the path from these adoptive parenting cognitions, as reported by the adoptive parents, to the quality of the parent-child relationship, as reported by the adolescent. The preliminary goals of the current study are to examine the constructs of acknowledgement of differences and incompatibility in the adoption network. The primary goal will then be to test a predictive model of parent-child attachment using these constructs.

1.5.1 Preliminary Goals: Exploring Acknowledgement of Differences

The current study will first explore the construct of acknowledgement of differences in the adoptive family. Specifically, we intend to examine psychometrically the specific components of Kirk's (1981) original parent-report scale of the construct. We will test to see if the scales reflect the three components outlined by Kirk. These are the

parent's acknowledgement of the child's adoption background, the parent's empathy towards the child about adoption related experiences, and communication between the parent and the child concerning adoption.

1.5.2 Primary Goals: Predictive of Attachment

The primary goal of the current study is to examine longitudinally the link between the adoptive parenting cognitions (in the form of acknowledgment of differences), and the level of attachment between the parent and adolescent child, as perceived by the adopted child. We hypothesize that higher levels of the parent's acknowledgement of differences during the adopted individuals' childhood would predict higher levels of attachment during the adopted individuals' adolescence.

In addition, we test a predictive model of attachment in the adoptive family to see if parent-perceived compatibility partially mediates the relationship between acknowledgement of differences and attachment. Building upon Kirk's (1984) Social Role Theory, we suggest that, through acknowledging the differences of adoptive parenthood and empathizing with the adoptive child's unique situation, parents are able to adapt their parenting behaviors to reflect this acknowledgment. They then begin to perceive their relationship with their child as compatible and are committed to the child regardless of differences in personality or physical appearance that may be attributed to genetics. This perceived compatibility leads to a parent initiated communication that addresses the concerns of the adopted child. As communication continues, the child develops trust for the parent. Finally, this trust and consistent availability is internalized in the child, resulting in high levels of attachment. Contrary to this, a lower level of acknowledgement feeds a lack of empathy for the child's unique experiences. As a result,

the parent is unable to accept and adapt to the differences between her/himself and the adopted child when these differences arise, and therefore perceive the relationship as incompatible. This perception of incompatibility hinders communication on adoption related issues and leads the adolescent to feel as though he/she cannot trust their adoptive parent with their concerns. This lack of trust results in lower levels of attachment.

Thus, we hypothesize that parent-perceived compatibility will mediate the relationship between acknowledging differences and attachment. Higher levels of acknowledgement of differences in an adoptive parent will manifest as perceptions of compatibility between the parent and the child. This perception of compatibility will then eventually lead to the adopted child responding with feelings of attachment towards the adoptive parent during adolescence.

CHAPTER 2

METHOD

2.1 Participants

The current study focuses on adoptive families from Wave 1 and Wave 2 of the Minnesota/Texas Adoption Research Project (MTARP), a longitudinal study examining the effects of openness in the adoption network (Grotevant, McRoy, Wrobel, & Ayers-Lopez, 2013). Specifically, data will be used from adoptive mothers and adoptive fathers at Waves 1 and 2 and adopted adolescents at Wave 2. Inclusion criteria for the larger study were as follows: the adopted child was between the ages of 4 and 12; the parents adopted the child before the child's first birthday; and the adoption was not transracial, international, or special needs. Participants were recruited between 1986 and 1992 through 35 adoption agencies in the United States. Researchers and agencies identified groups of adoptive families based on their degree of openness and randomly sampled participants from these groups. This allowed there to be relatively equal numbers of families from each group in the study. In addition, a small number of adoptive families were recruited via printed advertisements. Participants from the first wave of the study were contacted again between 1996 and 2001 for Wave 2 of the study.

In the larger study, participants from Wave 1 included 380 adoptive parents (mothers and fathers in 190 adoptive couples). Adoptive mothers were between the ages of 31 and 50 ($M = 39.1$) and adoptive fathers were between the ages of 32 and 53 ($M = 40.7$). All couples at Wave 1 had adopted children between the ages of 4 and 12 years ($M = 7.8$). A majority of adoptive couples identified as White (97%), and a small number identified as Latino, Black, or Latino and White. Adoptive couples were primarily

Protestant and middle to upper-middle class. Nearly all of the couples stated they had adopted due to infertility. For more detailed descriptions of the MTARP sample, please see Table 1 in Grotevant, McRoy, Wrobel, and Ayers-Lopez (2013).

In the larger study, participants from Wave 2 included 156 adopted adolescents (81 females, 75 males). Adolescents at Wave 2 were between the ages of 11 and 20 years of age ($M = 15.7$, $SD = 2.1$). Almost all of the adopted adolescents identified as White. Because not all adopted children from Wave 1 participated at Wave 2, attrition analyses were performed to examine the differences between participating and non-participating adolescents at Wave 2. Results indicated that the two groups did not significantly differ on the following variables: child's intellectual engagement, child's poor emotional control, child's social isolation, child's symptoms (as reported by both parents), parenting stress (as reported by both parents), parent education, child age, and level of openness in the adoption. However, adolescent males were less likely to participate than adolescent females at Wave 2; $\chi^2(1) = 7.25$, $p < .01$.

2.2 Procedure

Procedures for the larger study were approved by the University of Texas at Austin (for Wave 1), University of Minnesota (for Waves 1 & 2), and University of Massachusetts Amherst (for analysis) Institutional Review Boards. Data collection for Wave 1 took place in the homes of the adoptive families. Sessions were approximately three to four hours in length and included the following: individual interviews with the adoptive father, adoptive mother, and adopted child; a series of questionnaires; and a joint interview with both adoptive parents. Data collection for Wave 2 largely took place in the homes of the adoptive families. Sessions were approximately four to five hours in

length and included the following: individual interviews with the adoptive father, adoptive mother, and adopted child; a series of questionnaires; and a family interaction task. For a small number of participants, data collection occurred via phone (for interviews) and mail (for questionnaires) when home visits were not possible.

2.3 Measures

2.3.1 Kirk Constructs

At Wave 1, adoptive mothers and adoptive fathers completed the Kirk Adoption Questionnaire (Kirk, 1981 as modified by McRoy, Grotevant, & Zurcher, 1988), a 14-item questionnaire that assesses constructs in David Kirk's Social Role Theory. The scale used in the current study was modified by changing the items from a dichotomous scale (yes, no) to a continuous scale (never, sometimes, often, always; McRoy, Grotevant, & Zurcher, 1988). Six items assess Acknowledgement of Differences (AOD), four items assess Empathy, and four items assess Communication. Five of the AOD items asked the parents to report the frequency in which they thought about various aspects of the child's past and birth family. One item asked about the frequency with which the parent talked to their spouse about the child's birth family. The four Empathy items asked the parent to report the frequency with which the parent thought about how the adopted child perceived the adoption. The four Communication items asked the parent to report the frequency with which the parent openly acknowledged the child's adoption through celebrating the adoption or speaking with the child about adoption. Analyses of the Kirk Adoption Questionnaire have shown adequate evidence to support internal consistency (Bohman, McRoy, & Grotevant, 1993; Bohman, McRoy, & Grotevant, 1997).

2.3.2 Acknowledgement of Differences in Families

An additional measure of acknowledgement of differences in adoptive mothers and adoptive fathers at Wave 2 of the study was coded from interviews with adoptive mothers and adoptive fathers respectively. Acknowledgement of differences was conceptualized as the degree to which the parent believes that the adoption makes his or her family different from a nonadoptive family and was measured on a five-point likert scale that ranged from “rejection of differences” to “insistence on differences”. “Rejection of differences” indicated that the parent believed there to be no difference between his/her own family and nonadoptive families. In contrast, “insistence on differences” indicated an overemphasis on the differences between his/her own family and nonadoptive families.

2.3.3 Parent-perceived Incompatibility

The Parenting Stress Index – Form 6 (PSI; Abidin, 1986) was completed independently by both the adoptive mother and the adoptive father at both Wave 1 and Wave 2. The index aims to assess the multiple sources of parenting stress and focuses on three domains: characteristics of the child, characteristics of the parent, and stressful life events. In the current study, adoptive parents completed the child domain and the parent domain items. The child domain consists of 47 items on a 4 or 5-point Likert Scale, with higher scores indicating higher levels of stress. Items in the child domain are sectioned into six sub-scales. The parent domain consists of 54 items on a 4 or 5-point Likert Scale and scores in this domain are sectioned into seven sub-scales. Scores for the parent and child domain are obtained by summing the responses on the items within each domain. A total parenting stress score is derived from adding together the scores from the parent

domain and the child domain. Much evidence has been found to support the reliability and validity of Form 6 of the PSI (see Abidin, 1986 for review).

Although the conceptual model of the current study and past literature primarily speak about compatibility between the parent and child, the proposed study is operationalizing this construct as its inverse, incompatibility, due to its implications for problematic outcomes for children. Thus, the current study uses a measure of parent-perceived incompatibility created by summing four sub-scales from the child domain: Acceptability, Adaptability, Demandingness, and Reinforces Parent (Grotevant, Wrobel, van Dulmen, & McRoy, 2001). The Acceptability sub-scale measures the parent's perception of the degree to which the child's behavior does not match the parent's expectations. The Adaptability subscale measures the parent's perception of the child's difficulty adjusting to environmental changes. The Demandingness subscale measures the parent's perception of the degree to which the child is too dependent on the parent. Finally, the Reinforces Parent sub-scale measures the parent's perception of the lack of positive feedback from the child. The assumption is that higher levels on these scales represent higher levels of parenting stress in relation to these domains. In a sample of adoptive parents at Wave 2 of MTARP, internal consistency coefficients on these four scales were between .71 and .86. In addition, a previous study found that the internal consistency coefficient for the total incompatibility measure at Wave 1 was .87 (Ross, 1995). Past research utilizing this measure of incompatibility has found evidence for test-retest reliability (Grotevant, Wrobel, van Dulmen, & McRoy, 2001).

2.3.4 Adolescent-perceived Attachment

The Inventory of Parent and Peer Attachment (IPPA; Armsden & Greenberg, 1987) was completed by the adopted adolescents at Wave 2. Development of the IPPA was based on John Bowlby's attachment theory, and focuses on aspects such as trust, communication, and alienation (Armsden & Greenberg, 1987). The revised version of the IPPA is divided into three segments: attachment to the mother, attachment to the father, and attachment to peers. Each segment consists of 25 items that are scored on a 5-point Likert Scale. When calculating the total score for each segment, certain items are reverse-scored and then the scores within each segment are summed. Data in the current study came from the questions about attachment to mother and attachment to father. The original version of the IPPA demonstrated sufficient 3-week test-retest reliability ($r = .93$) for the parent measure (Armsden & Greenberg, 1987). A past study utilizing Wave 2 MTARP data found internal consistency coefficients of .96 for the adolescent's attachment to the adoptive mother and .97 for the adolescent's attachment to the adoptive father (Grant-Marsney, Grotevant, & Sayer, 2015). Multiple studies have provided evidence for the IPPA's validity (Armsden, 1986; Armsden & Greenberg, 1987; Armsden, McCauley, Greenberg, Burke, & Mitchell, 1990).

2.3.5 Parent-perceived Attachment Difficulties

The Attachment subscale of the Parenting Stress Index – Form 6 (PSI; Abidin, 1986) was used as a measure of attachment between the parent and the child at Wave 1. The Attachment subscale is part of the parent domain of the PSI and measures the parent's perception of attachment related difficulties. This involves issues in feelings of closeness towards the child as well as generally understanding the child's emotions.

Higher scores on the subscale reflect higher levels of stress attributed to difficulties related to parent-child attachment.

2.4 Data Analysis Plan and Rationale

2.4.1 Preliminary Analyses

Prior to analyses, frequencies and distributions were examined for all variables of interest. This included assessing for normality and identifying outliers. In addition, analyses were conducted to assess the strength of gender differences in the child variables as well as in their interrelationships in order to determine if gender would be included as a factor of interest in subsequent analyses. Significant gender differences were not expected due to prior work with these variables in this sample (Grant-Marsney, Grotevant, & Sayer, 2015).

Confirmatory factor analyses were performed to examine the underlying factors of the Kirk Adoption Questionnaire (KAQ; Kirk, 1981 as modified by McRoy, Grotevant, & Zurcher, 1988). We predicted that the data would fit a constrained model with three factors that correspond with the three subscales on the KAQ: Acknowledgment of Differences, Empathy, and Communication. Factor analyses were performed separately for adoptive mothers and adoptive fathers.

In addition, separate correlational analyses for adoptive mothers and adoptive fathers were utilized to examine the relationship between the attachment scores from the Inventory of Parent and Peer Attachment (IPPA) and scores on a measure of attachment-related distress from the Parenting Stress Index (PSI) at Wave 1. This was done to determine if the measure of attachment-related distress could be used as a control variable in the primary analyses.

2.4.2 Primary Analyses

The current study included data on acknowledgement of differences and associated constructs, parent-perceived compatibility, and adolescent-perceived attachment for both the adoptive mother and the adoptive father. Primary analyses were conducted separately for adoptive mothers and adoptive fathers. This strategy is supported by research indicating that mothers and fathers may play different roles in the child's life (Pinquart & Sörensen, 2006; Russell & Russell, 1987), which may in turn influence the perceptions of the child.

Before testing the individual mediational models, hierarchical regression was used to examine whether the constructs presented in Kirk's Social Role Theory at Wave 1 predicted the adopted child's perception of attachment towards the parent at Wave 2, after controlling for attachment-related distress at Wave 1 and child age. Although the current study is primarily interested in the parents' acknowledgement of differences, the KAQ is untested and all subscales are theoretically related to the parent's thoughts about the adopted child. Thus, all three subscales were used in this initial exploratory analysis. The predictors in the regression analyses included the three subscales of the KAQ, the child's age at Wave 2, and the measure of attachment-related distress from the PSI at Wave 1, with the measure of attachment-related distress and child age being entered in the first step and the three subscales of the KAQ being entered in the second step. Power analyses using a medium effect size, an alpha value of .05, five predictors, and a sample size of 150 (accounting for possible attrition) revealed a power of .97. Effect sizes were measured using standardized regression coefficients.

Finally, given that the current study employed two waves of data, we utilized a panel design for partial mediation recommended by Cole and Maxwell (2003) when examining the mediating role of parent-perceived incompatibility in the relationship between adoptive parenting cognitions and later parent-child attachment. In Kirk's (1984) Social Role Theory, acknowledgement of differences, empathy, and communication are presented in a linear progression; however, the three constructs may be interconnected and mutually reinforcing. Although the Empathy subscale appears to be most directly analogous with general parenting cognitions such as mind-mindedness and parental insightfulness, the Acknowledgement of Differences subscale, which involves the parent's acknowledgement of the child's adoption background, appears to reflect the construct that is most foundational to Kirk's theories and unique in its entirety to adoptive parenting (Kirk, 1984). Thus, the Acknowledgement of Differences subscale of the KAQ was used as a predictor in this model. Using regression analyses, we examined if acknowledgement of differences at Wave 1 predicted parent-perceived incompatibility at Wave 2, when controlling for parent-perceived incompatibility at Wave 1 (Path a). We also examined the degree to which parent-perceived incompatibility at Wave 1 predicts parent-child attachment at Wave 2, when controlling for attachment related difficulties as measured by the PSI at Wave 1 (Path b). Power analysis using a medium effect size, an alpha value of .05, two predictors, and a sample size of 110 (accounting for possible attrition) revealed a power of 0.957.

CHAPTER 3

RESULTS

3.1 Descriptive Statistics

Means, standard deviations, and zero-order correlations of the variables of interest are presented in Table 1.

3.2 Preliminary Analyses

Preliminary analyses began with assessment for potential outliers through examining influence statistics (Belsley, Kuh, & Welsch, 1980). Influence statistics were calculated separately for mother-child and father-child dyads through regressing parent-child attachment at Wave 2 on acknowledgement of differences at Wave 1, while controlling for attachment related distress at Wave 1. This model was chosen for influence diagnostics due to being the primary relationship of interest in the current study. Sample-size-adjusted cut off scores recommended by Cohen, Cohen, West, and Aiken (2003) were utilized in identifying cases with high influence. When examining the model for mother-child dyads, the DFFITS cutoff score for a sample size of 100 was .346 whereas the DFBETAS cutoff score was .2. Although a number of cases exceeded these scores, one case was found to be particularly influential (DFFITS = -1.362, DFBETAS = -1.296). Examination of a scatterplot of the mother model also suggested that this case was potentially influential. In contrast, influential diagnostics for the father model did not reveal any cases that were influential to a similar degree. It was decided to exclude the case that was found to be influential in the mother model from all future preliminary and primary analyses.

Correlational analyses were conducted to examine potential child gender differences across the measures of interest. No child gender differences were found across any of the individuals' measures. In addition, regression analyses were utilized to explore gender differences in the relationship between acknowledgement of differences and parent-child attachment. For both mothers and fathers, attachment to the parent at Wave 2, as measured by the IPPA, was regressed on child gender, parents' acknowledgement of differences at Wave 1 as measured by the KAQ, and the interaction between child gender and acknowledgement of differences. Results of these analyses indicated no significant main effects of gender or interactions with gender. Due to the results of these analyses, the gender of the adopted child was not included in any further analyses.

Confirmatory factor analysis was utilized to examine the underlying factors of the Kirk Adoption Questionnaire (KAQ; Kirk, 1981 as modified by McRoy, Grotevant, & Zurcher, 1988). More specifically, CFA was conducted to establish whether or not the items on the KAQ fit a constrained model with the three factors that correspond to Acknowledgement of Differences, Empathy, and Communication. Results of analyses indicated that the three factor solution was an adequate fit for the adoptive father model (RMSEA = .068, 95% CI [.047, .089]) and the adoptive mother model (RMSEA = .064, 95% CI [.042, .086]) in the present study (see Hooper, Coughlan, & Mullen, 2008 for review).

Correlational analyses were conducted to examine the relationship between the measure of attachment-related distress at Wave 1, as measured by the PSI, and the measure of child-perceived attachment at Wave 2, as measured by the IPPA. Results

indicated that the measure at Wave 1 significantly predicted the measure at Wave 2 in the expected direction for adoptive fathers ($r = -.260, p = .003$) but not for adoptive mothers ($r = -.063, p = .481$). It was decided to utilize the PSI measure of attachment-related distress as a control variable in the current study.

3.3 Primary Analyses

3.3.1 Research Question 1: Kirk Constructs as Predictor of Attachment

Hierarchical regression was utilized to examine if the three Kirk constructs at Wave 1 (acknowledgement of differences, empathy, and communication) predicted adolescent-perceived attachment at Wave 2 after controlling for attachment-related distress at Wave 1 and child age. To do so, attachment-related distress and child age were entered in step one of the hierarchical regression while the three KAQ subscales were entered at step 2. Results for adoptive fathers indicated that the addition of the three KAQ subscales at step 2 accounted for a significant amount of the variance in the model ($\Delta R^2 = .101, p = .012$). Specifically, acknowledgement of differences significantly predicted parent-child attachment ($\beta = .362, p = .002$) in that higher levels of acknowledgement of differences predicted higher levels of attachment as perceived by the adopted adolescent. Results for the adoptive mother indicated that none of the three KAQ subscales entered at step 2 significantly predicted parent-child attachment. These results provided further support for using the scale of acknowledgement of differences as the primary predictor in the partial mediation models.

3.3.2 Research Question 2: Parent-perceived Incompatibility as a Partial Mediator

The present study utilized a panel design recommended by Cole and Maxwell (2003) in order to examine the mediating role of parent-perceived incompatibility in the

relationship between a parent's acknowledgement of differences and adolescent's perception of attachment. Cole and Maxell recommend a panel design as a test of partial mediation when the study design only includes two time points.

The full panel design can be seen in Figure 2. For adoptive fathers, multiple regression results for path "a" indicated that acknowledgement of differences at Wave 1 did not significantly predict adolescent-perceived attachment at Wave 2, when controlling for incompatibility at Wave 1 ($\beta = -.073, p = .391$). Similarly, for path "b", parent-perceived incompatibility at Wave 1 did not significantly predict adolescent-perceived attachment at Wave 2, when controlling for attachment related distress at Wave 1 ($\beta = -.024, p = .814$). For adoptive mothers, multiple regression results for path "a" in the panel design indicated that acknowledgement of differences at Wave 1 significantly and negatively predicts mother-perceived incompatibility at Wave 2, when controlling for incompatibility at Wave 1 ($\beta = -.171, p = .035$). Multiple regression results for path "b" indicated that mother-perceived incompatibility at Wave 1 did not significantly predict adolescent-perceived attachment at Wave 2, when controlling for attachment-related distress at Wave 1 ($\beta = .011, p = .912$).

CHAPTER 4

DISCUSSION

In the current study, preliminary analyses were conducted to determine whether the items on the Kirk Adoption Questionnaire reflected the three constructs originally presented in Kirk's Social Role Theory: Acknowledgement of Differences, Empathy, and Communication. Results from confirmatory factor analyses indicated that a three-factor solution was an adequate fit for both adoptive fathers and adoptive mothers.

We hypothesized that a parent's acknowledgement of differences would longitudinally predict parent-child attachment, as perceived by the adopted adolescent, eight years later. Results of the current study indicated that father's acknowledgement of differences longitudinally predicted father-child attachment, as perceived by his adopted adolescent. However, mother's acknowledgement of differences did not significantly predict later mother-child attachment. Thus, there was evidence for the importance of adoptive parenting cognitions for the parent-child relationship at a later time point for adoptive fathers but not adoptive mothers.

In addition, we hypothesized that parent-perceived incompatibility would mediate the hypothesized relationship between acknowledgement of differences and later parent-child attachment. Results indicated that parent-child incompatibility, as perceived by adoptive parents, did not mediate the relationship between acknowledgement of differences and parent-child attachment for either father-child or mother-child dyads, although mother's acknowledgement of differences did negatively predict mother-perceived incompatibility eight years later. Thus, the current study found no evidence to suggest that an adoptive parent's perceptions of match with his or her adopted child

played a role in the relationship between adoptive parenting cognitions and later parent-child attachment.

Overall, results from the current study suggest that there may be a relationship between adoptive parenting cognitions and parent-child attachment; however, this relationship may function differently depending on the gender and associated role of the adoptive parent. For example, in general, mothers traditionally have more caregiving roles than fathers (Pinquart & Sörensen, 2006; Russell & Russell, 1987). As a result, adoptive mothers may encounter more of the challenges associated with raising an adopted child than adoptive fathers, such as helping the child navigate his or her own emerging sense of adoptive identity and helping the child deal with adoption stigma and discrimination. In addition, adoptive mothers tend to play the primary role in navigating contact with birth relatives, such as the birth mother of the child (Dunbar et al., 2006). Any satisfaction or dissatisfaction related to birth relative contact experienced by an adopted individual may affect the level of closeness between the adopted individual and his/her adoptive mother. These factors were not explored in the current study and may have unique implications for the mother-child relationship that overpower the pathway theorized by Kirk (1984). Therefore, it may be difficult to identify any singular contributing factor that predicts attachment eight years later.

Previous studies have found much evidence for the relationship between parenting cognitions in general and parent-child attachment (e.g. Koren-Karie et al., 2002; Meins et al., 2001), with this relationship occurring through parenting constructs such as sensitivity (Laranjo, Bernier, & Meins, 2008; Stacks et al., 2014) and interactional synchrony (Lundy, 2003). While certain aspects of Kirk's constructs, such as the ability

to understand the child's point of view, may be similar to the general conceptualization of parenting cognitions currently in the literature, other constructs are fairly unique to adoptive parenthood. Primarily, the concept of a parent acknowledging that being an adoptive parent is different from being a parent in a nonadoptive family in important ways is a key precursor to this empathy that is only experienced by adoptive parents. Thus, one could expect that the relationship between such cognitions and parent-child attachment may function differently than the relationship between mind mindedness, parental insightfulness, or parental reflective functioning, and parent-child attachment in non-adoptive families.

Any potential mechanism between more adoption-specific cognitions and later parent-child attachment may entail other constructs specific to adoptive families. Parent-perceived compatibility was hypothesized to look differently in the context of adoptive families due to the fact that there may be less of a physical or temperamental match between parent and child. However, the construct itself may not fully capture the unique challenges and experiences that adoptive parents and adopted children encounter as they learn to navigate their relationship in the context of the adoption. Thus, perhaps a more adoption-centric construct such as child's perception and feelings about their own adoption may be more appropriate to examine.

4.1 Study Strengths and Limitations

Strengths of the current study included the study's longitudinal and multi-informant design. The study is the first to longitudinally examine the relationship between the adoptive parents' cognitions about adoption and later parent-child attachment by utilizing two time points, with the potential mediating variable being

measured at both of these time points. In addition the current study included the perceptions from three different reporters within the adoptive family. Data included the perception of the adoptive mother, the perception of the adoptive father, and the adopted child's perception of both his/her adoptive mother and adoptive father. Strengths of the current study also include findings not yet explored in the current literature. One such finding is the validation of a three-factor solution that was first hypothesized by Kirk (1984) but has been for the most part untested. Another finding involves the significant longitudinal relationship between a father's adoptive parenting cognitions and later father-child attachment. Although such a finding requires replication, the finding contributes to the current literature in that little is known about adoptive fathering and the role of fathers in the lives of adopted individuals.

Limitations for the current study included the limited generalizability of potential findings. The current study utilized a sample of almost entirely White, within-race adoptive families. All families were composed of two heterosexual parents who domestically adopted an infant child. Contemporary adoption may take on many forms, including transracial adoption, international adoption, adoption from child welfare, and adoption by same-sex couples. Thus, results from the proposed study may not generalize to these other forms of adoption. Of particular question is the generalizability of findings to adoptions in which there are racial differences between the adoptive parent and the adopted child. Such racial differences may make it particularly difficult for adoptive parents to ignore differences between adoptive parenthood and biological parenthood.

Another limitation for the current study involved the use of only self-report measures that examined the participants' subjective perceptions of the constructs. Thus,

all measures were vulnerable to similar threats to construct validity. In addition, as both acknowledgement of differences and incompatibility were measured through parent self-report, it was possible that shared method variance biased results. Lastly, data in the current study were limited to only two time points. Due to the fact that the hypothesized mediating variable was not measured at a time point between the hypothesized predictor and outcome variables, the current study could not utilize a complete mediational design.

4.2 Future Directions

In the current study, the relationship between acknowledgement of differences and parent-child attachment was only present in the model for adoptive fathers and not in the model for adoptive mothers. In addition, the current study failed to find a mediating effect of parent-perceived incompatibility on the relationship between adoptive parenting cognitions, in the form of acknowledgement of differences, and parent-child attachment. However, there was evidence to suggest adoptive parenting cognitions in mothers may be related to mothers' feelings of incompatibility. Future research should seek to replicate these findings and attempt to shed further light on the nature of the relationship between these variables and on possible mother-father differences in adoptive parenting.

One potential future strategy is to utilize a couples approach as opposed to examining how adoptive parenting cognitions function for adoptive mothers and adoptive fathers separately. For example, future analyses could utilize cluster analyses to identify mother-father couples with unique patterns of adoptive parenting cognitions. These different couples can then be examined in relation to parent-child attachment. Multi-level models could also be utilized to examine whether the adoptive cognitions of mothers plays a role in the relationship between the father and child, and vice versa.

In addition, future studies could attempt to identify potential mediators and moderators in the relationship between adoptive parenting cognitions and parent-child attachment. The current study did not consider certain child/adolescent characteristics, such as temperament or feelings about adoption, that may be related to or influence how the child/adolescent responds to the parent's view towards adoption. Such factors could potentially influence how parenting cognitions affect the parent-child relationship, and contribute to the lack of findings in the current study. Lastly, future studies could re-visit the idea of a curvilinear relationship between adoptive parenting cognitions and family functioning (Brodzinsky, 1987), as opposed to the linear relationship hypothesized in the current study.

Table 1.

Correlations, means, and standard deviations for adoptive mother and adoptive father variables.¹

Wave 1 Variables	1	2	3	4	5	6	7	8
1. AOD	.371**	.436**	.285**	-.015	-.006	.182*	-.170	.074
2. Empathy	.512**	.331**	.225**	-.019	.080	.075	-.117	.053
3. Communication	.370**	.246**	.477**	-.129	-.059	.047	-.074	-.121
4. Incompatibility	-.100	.025	-.025	.438**	.499**	.199*	.491**	-.013
5. Attachment-related Distress	-.109	.027	.027	.531**	.118	.029	.272**	-.063
Wave 2 Variables	1	2	3	4	5	6	7	8
6. AOD	.172	.038	.035	.019	.006	.440**	.147	.084
7. Incompatibility	-.119	-.005	.013	.461**	.358**	.080	.598**	-.222**
8. Adolescent-perceived Attachment	.229*	.045	-.094	-.144	-.260**	-.051	-.239**	.703**
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
	6.96(3.04)	7.93(2.30)	4.61(2.24)	62.45(12.94)	11.71(2.75)	2.42(.92)	67.05(16.70)	98.46(17.49)
	5.77(3.06)	6.97(2.53)	4.34(2.34)	64.48(12.87)	12.81(3.02)	2.09(.94)	69.18(17.74)	95.90(19.43)

¹Correlations above the diagonal are for adoptive mothers and correlations below the diagonal are for adoptive fathers.

Correlations in bold along the diagonal are between adoptive mothers and adoptive fathers. Means and standard deviations in bold are for adoptive mothers.

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

Table 2

Hierarchical regression for adoptive fathers.

Variable	<i>B</i>	<i>SE</i>	β	<i>p</i>	<i>F</i>	<i>R</i> ²	ΔR^2
Step 1					4.883*	.092	
Attachment-related Distress	-2.176**	.697	-.304	.002			
Child Age	-.020	.903	-.002	.982			
Step 2					4.455**	.193	.101*
Attachment-related Distress	-1.932**	.672	-.270	.005			
Child Age	.632	.915	.068	.492			
Acknowledgement of Differences	2.430**	.745	.362	.002			
Empathy	-.888	.945	-.102	.350			
Communication	-1.651	.872	-.197	.062			

Note. The dependent variable was adolescent-perceived attachment at Wave 2. All independent variables were measured at Wave 1.

**p* < .05

***p* < .01

Table 3

Hierarchical regression for adoptive mothers.

Variable	<i>B</i>	<i>SE</i>	β	<i>p</i>	<i>F</i>	<i>R</i> ²	ΔR^2
Step 1					1.135	.027	
Attachment-related Distress	-.591	.721	-.090	.415			
Child Age	-1.211	.937	-.142	.200			
Step 2					1.218	.072	.045
Attachment-related Distress	-.803	.736	-.122	.279			
Child Age	-.941	.967	-.110	-.974			
Acknowledgement of Differences	1.168	.780	.192	.138			
Empathy	-.495	1.019	-.063	.628			
Communication	-1.409	.921	-.183	.130			

Note. The dependent variable was adolescent-perceived attachment at Wave 2. All independent variables were measured at Wave 1.

**p* < .05

***p* < .01

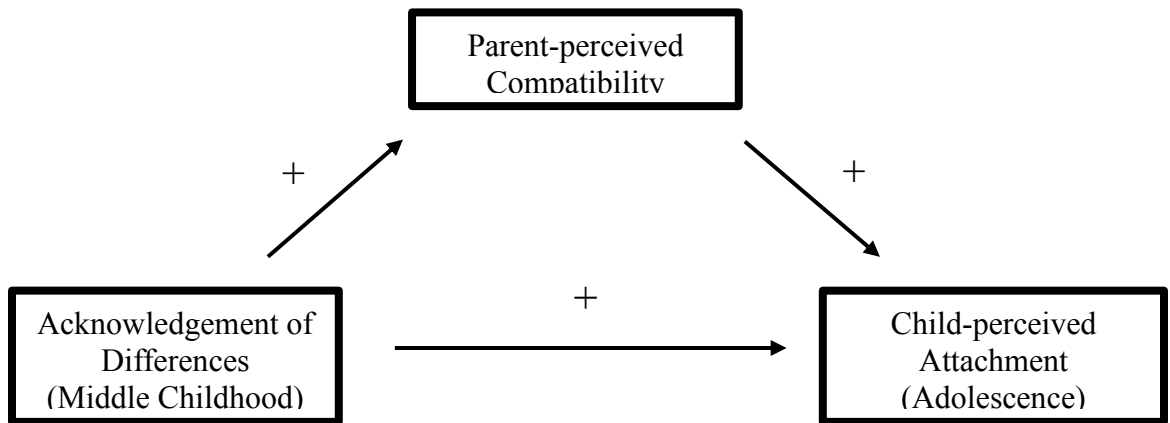


Figure 1. Conceptual model for the current study.

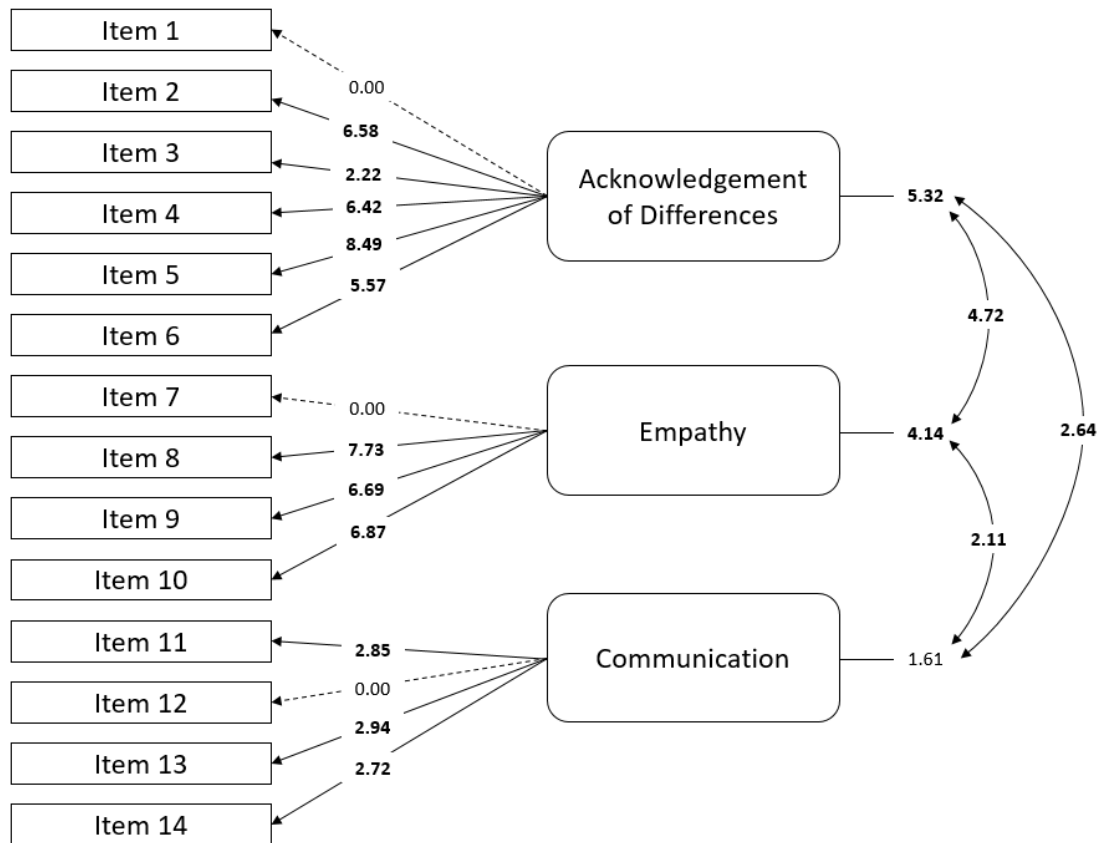


Figure 2. Results of the confirmatory factor analysis for adoptive fathers. Arrows with dotted lines indicate the reference item for that factor. Factor loadings and covariances are depicted as t-values. T-values in bold are significant to the $p < .05$ level.

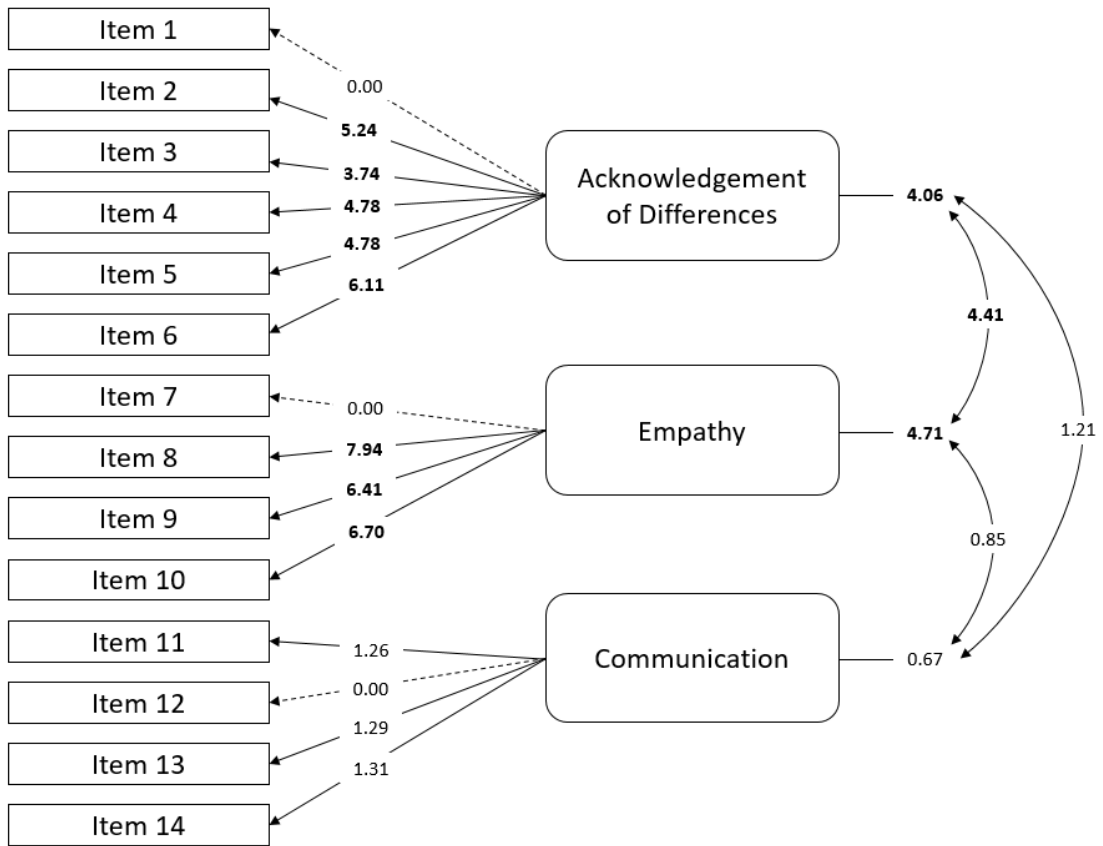


Figure 3. Results of the confirmatory factor analysis for adoptive mothers. Arrows with dotted lines indicate the reference item for that factor. Factor loadings and covariances are depicted as t-values. T-values in bold are significant to the $p < .05$ level.

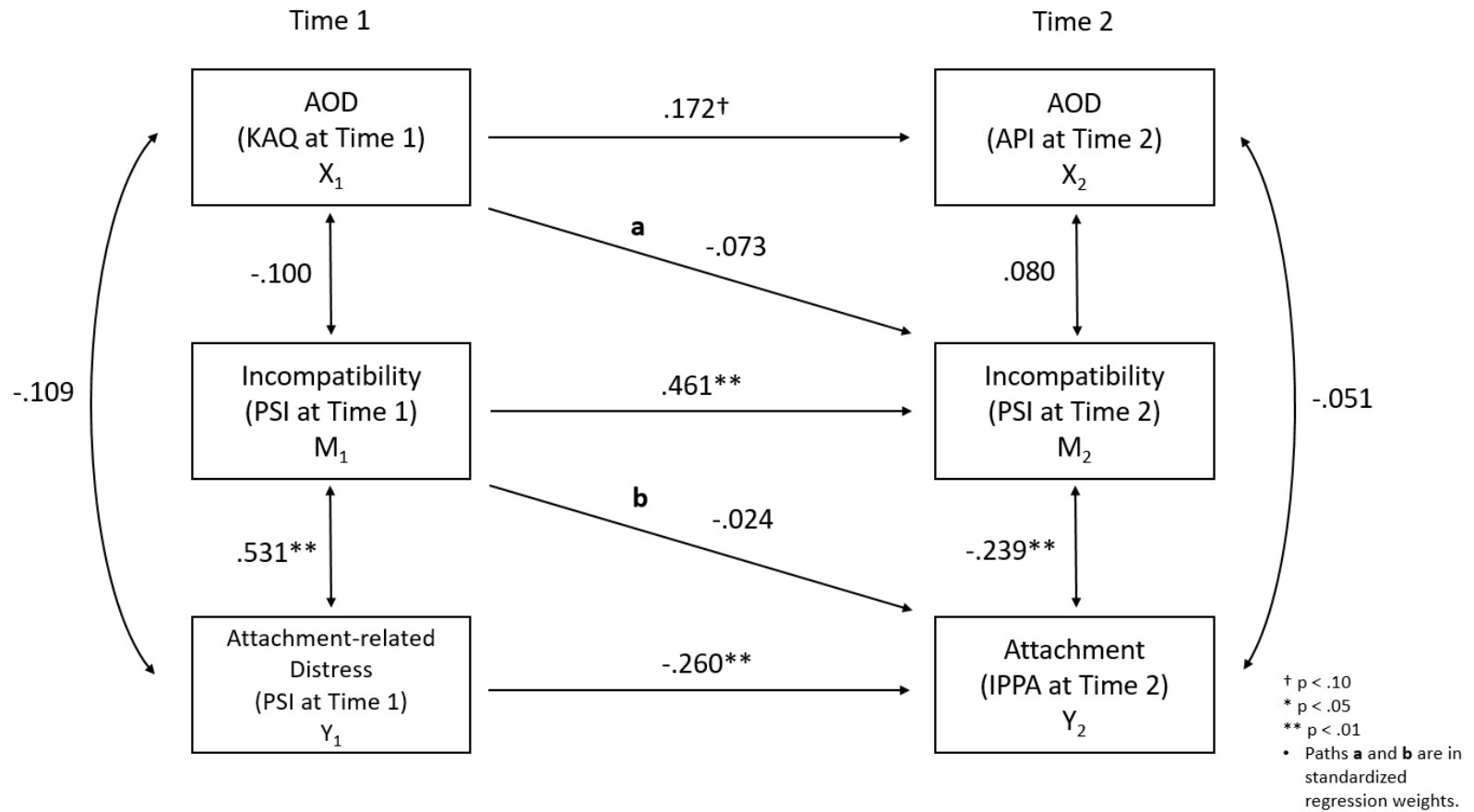


Figure 4. Results of the partial mediator model for adoptive fathers. Standardized coefficients are shown.

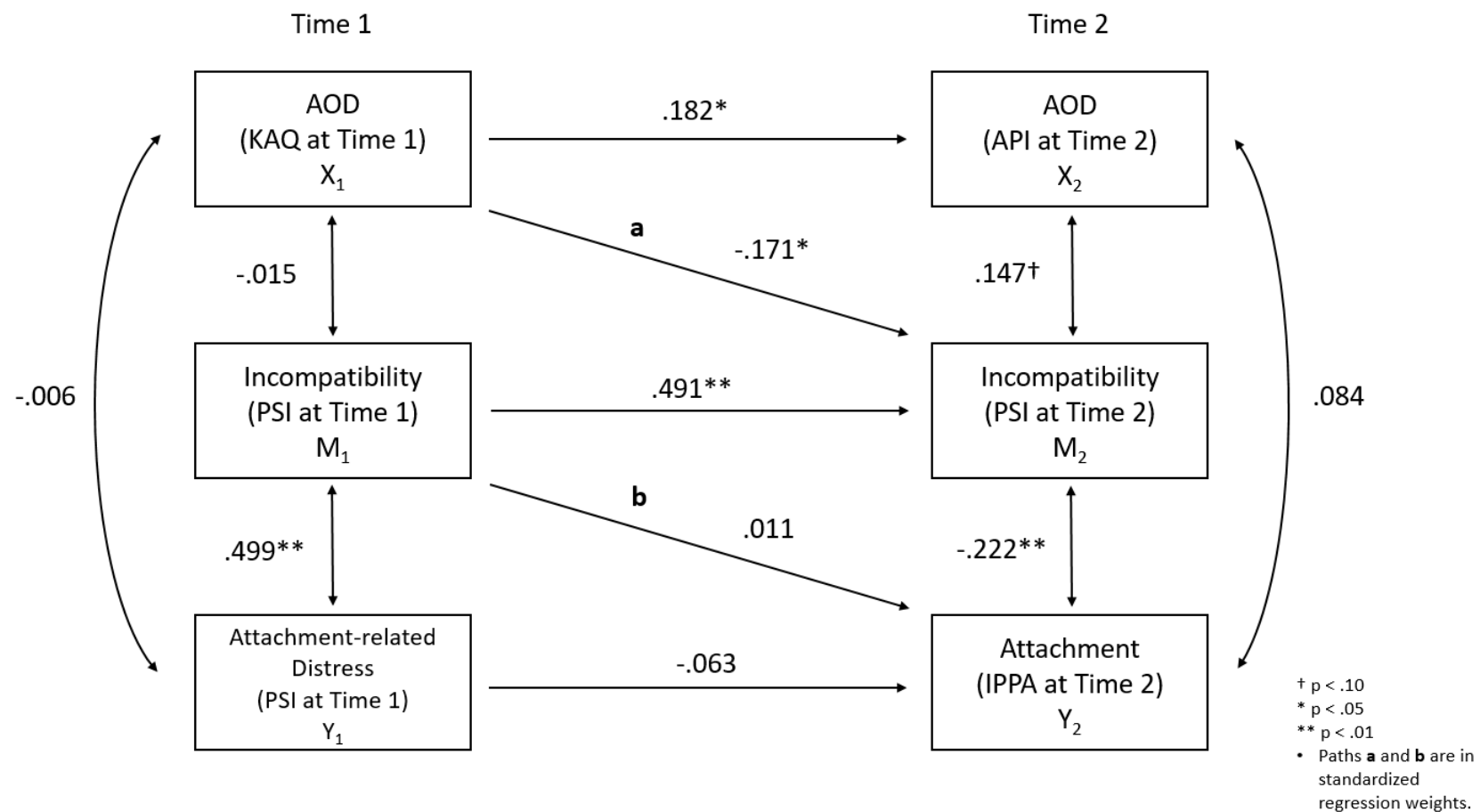


Figure 5. Results of the partial mediator model for adoptive mothers. Standardized coefficients are shown.

APPENDIX A

KIRK ADOPTION QUESTIONNAIRE

Minnesota/Texas Adoption Research Project
 Department of Family Social Science
 University of Minnesota

Code No. _____ - _____ - 06
 Mother Father

Adoption Questionnaire

How frequently have you:	During first 6 months after placement				Now			
	never	infrequently	sometimes	often	never	infrequently	sometimes	often
wondered whether the birth mother ever thinks about the child?								
wondered whether the birth father ever thinks about the child?								
remember child's original name?								
recalled that at one time the child legally belonged to someone else?								
wondered whether the birth mother worries about the child she has given up?								
and your spouse talked together about your child's birth mother or father?								
wondered what your words about adoption mean to the child?								
tried to imagine how the child feels (or will feel) about being adopted?								
thought that the child might someday be curious about his/her background?								
wished that you might understand adoption from the point of view of the child?								
told your child that he was adopted?								
celebrated the anniversary of the day the child came or of the day the adoption became legalized								
personally been asked by the child for the reasons why his/her birth parents did not keep him/her?								
(What answer did you give or do plan to give, if asked?) _____ _____								
told your child whether his birth parents were married?								

APPENDIX B

RELEVANT SUBSCALES ON THE PARENTING STRESS INDEX

Acceptability:

1. My child looks a little different than I expected and it bothers me at times.
2. In some areas my child seems to have forgotten past learnings and has gone back to doing things characteristic of younger children.
3. My child doesn't seem to learn as quickly as most children.
4. My child doesn't seem to smile as much as most children.
5. My child does a few things which bother me a great deal.
6. My child is not able to do as much as I expected.
7. My child does not like to be cuddled or touched very much.

Adaptability:

1. Compared to the average child, my child has a great deal of difficulty in getting used to changes in schedules or changes around the house.
2. My child reacts very strongly when something happens that my child doesn't like.
3. Leaving my child with a babysitter is usually a problem.
4. My child gets upset easily over the smallest thing.
5. My child easily notices and overreacts to loud sounds and bright lights.
6. My child's sleeping or eating schedule was much harder to establish than I expected.
7. My child usually avoids a new toy for a while before beginning to play with it.
8. It takes a long time and it is very hard for my child to get used to new things.
9. My child doesn't seem comfortable when meeting strangers.
10. When upset, my child is: 1 = Easy to calm down, 2 = Harder to calm down than I expected, 3 = Very difficult to calm down, 4 = Nothing I do helps to calm my child
11. I have found that getting my child to do something or stop doing something is: 1 = much easier than I expected, 2 = somewhat easier than expected, 3 = About as hard as expected, 4 = Somewhat harder than I expected, 5 = Much harder than I expected

Demandingness:

1. Think carefully and count the number of things which your child does that bothers you. 1 = 1-3, 2 = 4-5, 3 = 6-7, 4 = 8-9, 5 = 10 or more.
2. When my child cries it usually lasts: 1 = Less than 2 min., 2 = 2-5 min., 3 = 5-10 min., 4 = 10-15 min., 5 = More than 15 min.
3. There are some things my child does that really bother me a lot.
4. My child has had more health problems than I expected.
5. As my child has grown older and become more independent, I find myself more worried that my child will get hurt or into trouble.

6. My child turned out to be more of a problem than I had expected.
7. My child seems to be much harder to care for than most.
8. My child is always hanging on me.
9. My child makes more demands on me than most children.

Reinforces Parent:

1. My child rarely does things for me that make me feel good.
2. Most times I feel that my child likes me and wants to be close to me.*
3. Sometimes I feel my child doesn't like me and doesn't want to be close to me.
4. My child smiles at me much less than I expected.
5. When I do things for my child I get the feeling that my efforts are not appreciated very much.
6. Which statement best describes your child: 1 = Almost always likes to play with me, 2 = Sometimes likes to play with me, 3 = Usually doesn't like to play with me, 4 = Almost never likes to play with me

Attachment:

1. How easy is it for you to understand what your child wants or needs? 1 = Very easy, 2 = Easy, 3 = Somewhat difficult, 4 = Very hard, 5 = I usually can't figure out what the problem is
2. It takes a long time for parents to develop close, warm feelings for their children.
3. I expected to have closer and warmer feelings for my child than I do and this bothers me.
4. Sometimes my child does things that bother me just to be mean.
5. When I was young, I never felt comfortable holding or taking care of children.
6. My child knows I am his or her parent and wants me more than other people.*
7. The number of children that I have now is too many.

* Denotes a reverse scored item.

APPENDIX C

**INVENTORY FOR PARENT AND PEER ATTACHMENT FOR ATTACHMENT
TOWARDS ADOPTIVE MOTHER**

RELATIONSHIPS QUESTIONNAIRE

This questionnaire asks about your relationships with important people in your life: your mother, your father, and your close friends. Please read the directions to each part carefully.

Part I. The following statements ask about your adoptive mother if you are adopted. If you are not an adopted person, the questions refer to your biological mother. Please read each statement and circle the ONE number that tells how true the statement is for you now. Please answer every question.

	1		2		3		4		5
	Almost Never or Never True		Not Very Often True		Sometimes True		Often True		Almost Always or Always True
1	2	3	4	5	1. My mother respects my feelings.				
1	2	3	4	5	2. I feel my mother does a good job as my mother.				
1	2	3	4	5	3. I wish I had a different mother.				
1	2	3	4	5	4. My mother accepts me as I am.				
1	2	3	4	5	5. I like to get my mother's point of view on things I'm concerned about.				
1	2	3	4	5	6. I feel it's no use letting my feelings show around my mother.				
1	2	3	4	5	7. My mother can tell when I'm upset about something.				
1	2	3	4	5	8. Talking over my problems with my mother makes me feel ashamed or foolish.				
1	2	3	4	5	9. My mother expects too much from me.				
1	2	3	4	5	10. I get upset easily around my mother.				
1	2	3	4	5	11. I get upset a lot more than my mother knows about.				
1	2	3	4	5	12. When we discuss things, my mother cares about my point of view.				
1	2	3	4	5	13. My mother trusts my judgment.				
1	2	3	4	5	14. My mother has her own problems, so I don't bother her with mine.				
1	2	3	4	5	15. My mother helps me to understand myself better.				

- | | | | | | |
|----------|----------|----------|----------|----------|---|
| 1 | 2 | 3 | 4 | 5 | 16. I tell my mother about my problems and troubles. |
| 1 | 2 | 3 | 4 | 5 | 17. I feel angry with my mother. |
| 1 | 2 | 3 | 4 | 5 | 18. I don't get much attention from my mother. |
| 1 | 2 | 3 | 4 | 5 | 19. My mother helps me to talk about my difficulties. |
| 1 | 2 | 3 | 4 | 5 | 20. My mother understands me. |
| 1 | 2 | 3 | 4 | 5 | 21. When I am angry about something, my mother tries to be understanding. |
| 1 | 2 | 3 | 4 | 5 | 22. I trust my mother |
| 1 | 2 | 3 | 4 | 5 | 23. My mother doesn't understand what I'm going through these days. |
| 1 | 2 | 3 | 4 | 5 | 24. I can count on my mother when I need to get something off my chest. |
| 1 | 2 | 3 | 4 | 5 | 25. If my mother knows something is bothering me, she asks me about it. |

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