Mind the gap: Attending to the transmission gap and its implications for families with adopted children

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Mind the gap: Attending to the transmission gap and its implications for families with adopted children

Abstract
Domestic and international adoptions in the United States are on the rise (Roberson, 2006). Unfortunately, some recent high-profile adoption disruptions (e.g., the case of Artem Saveliev) have highlighted the lack of support given to many families with regard to forming a relationship with their adopted child. In fact, difficulty in forming an attachment relationship is the primary reason cited for adoption disruption (Berry & Barth, 1991; Coakley & Berrick, 2008; Schmidt, Rosenthal, & Bombeck, 1988).

Despite the relatively high (i.e., 8-15%) rate of disruptions, there is a lack of research focusing on how adoptive parents can form a secure attachment relationship with their children (Barth, Berry, Yoshikami, Goodfield, & Carson, 1988; Coakley & Berrick, 2008; Festinger, 1990; Stolley, 1993). There is also a lack of information pertaining to how attachment styles are transmitted across generations; this lack of information has been deemed the transmission gap by researchers. This paper focuses on what is known about the transmission gap as it applies to cases of domestic and international adoption, with a specific focus on how families who adopt children may form a strong attachment relationship so as to prevent disruption of the adoption. Literature was selected based on the following search terms: adopt*, attach*, and transmission gap. This review was restricted to English-language literature published after 1969. Available literature relevant to attachment formation and therapeutic interventions is also reviewed, and recommendations for mental health professionals and parents are discussed.

Degree Type
Dissertation

Degree Name
Doctor of Psychology (PsyD)

Committee Chair
Catherine A. Miller, Ph.D.

Second Advisor
Sandra Y. Jenkins, Ph.D.

Subject Categories
Psychiatry and Psychology

Comments
Library Use: LIH

This dissertation is available at CommonKnowledge: https://commons.pacificu.edu/spp/446
MIND THE GAP: ATTENDING TO THE TRANSMISSION GAP AND ITS IMPLICATIONS FOR FAMILIES WITH ADOPTED CHILDREN

A DISSERTATION

SUBMITTED TO THE FACULTY

OF

SCHOOL OF PROFESSIONAL PSYCHOLOGY

PACIFIC UNIVERSITY

HILLSBORO, OREGON

BY

JESSICA L. BINKLEY, M.S.

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PSYCHOLOGY

JULY 25, 2011

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ABSTRACT

Domestic and international adoptions in the United States are on the rise (Roberson, 2006). Unfortunately, some recent high-profile adoption disruptions (e.g., the case of Artem Saveliev) have highlighted the lack of support given to many families with regard to forming a relationship with their adopted child. In fact, difficulty in forming an attachment relationship is the primary reason cited for adoption disruption (Berry & Barth, 1991; Coakley & Berrick, 2008; Schmidt, Rosenthal, & Bombeck, 1988).

Despite the relatively high (i.e., 8-15%) rate of disruptions, there is a lack of research focusing on how adoptive parents can form a secure attachment relationship with their children (Barth, Berry, Yoshikami, Goodfield, & Carson, 1988; Coakley & Berrick, 2008; Festinger, 1990; Stolley, 1993). There is also a lack of information pertaining to how attachment styles are transmitted across generations; this lack of information has been deemed the transmission gap by researchers. This paper focuses on what is known about the transmission gap as it applies to cases of domestic and international adoption, with a specific focus on how families who adopt children may form a strong attachment relationship so as to prevent disruption of the adoption.

Literature was selected based on the following search terms: adopt*, attach*, and transmission gap. This review was restricted to English-language literature published after 1969. Available literature relevant to attachment formation and therapeutic interventions is also reviewed, and recommendations for mental health professionals and parents are discussed.

Key words: Attachment, adoption, transmission gap, adoption disruption
ACKNOWLEDGEMENTS

This work would not have been possible without the support of multiple individuals. I would first like to extend my appreciation to my dissertation committee; Dr. Catherine Miller and Dr. Sandra Jenkins. Their guidance and efforts in shaping, editing, and assisting me to think critically about this project have been invaluable. I am also thankful for the support of my research team, who encouraged me to explore the personal motivations behind my choice of topic. Further, I would like to thank the numerous individuals who have assisted in providing me with a secure base from which I could explore, gain independence, and obtain comfort; to name a few, my family and grandparents, Sheryl, Mrs. Cherry, Coaches Jewett and Welsh, Drs. Heil and Gabardi, and close friends Ginny Clayton and Emily Szeliga. Finally, I would like to acknowledge three women who have been essential in encouraging my personal and professional growth over my time in graduate school. To Holly- thank you for helping me navigate the “yellow jello” and providing me with several transitional objects. To Cathy- thank you for providing me with a solid theoretical and clinical base as well as a wonderful model of warm and professional supervision and advising. To Sandy- thank you for helping me navigate, explore, develop, and strengthen my multiple personal, professional, and political identities through countless hours of brunch, debriefing, and phone calls.

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INTRODUCTION

Recent events such as the case of Artem Saveliev have highlighted the importance of providing appropriate support to adopted children and their families. Artem Saveliev is a Russian adoptee who was unceremoniously sent back to Russia from the United States by his adoptive mother, purportedly due to severe behavioral and emotional difficulties. He was sent back via plane in 2010 with a note from Torry Hansen, his adoptive mother, but without any accompanying adult. Artem is one of several thousand children who are adopted (domestically or internationally) in the United States (U.S.) each year. Specifically, it is estimated that approximately 4% of families in the U.S. include a legally adopted child, and that 13% of adopted children are foreign born (Roberson, 2006; van den Dries, Juffer, van Ijzendoorn, & Bakermans-Kranenburg, 2009).

Unfortunately, approximately 8% of adoptions fail (either through dissolution or disruption), and a primary reason listed for this failure is difficulty forming an attachment relationship (Berry & Barth, 1991; Coakley & Berrick, 2008; Roberson, 2006; Schmidt, Rosenthal, & Bombeck, 1988). This difficulty in forming an attachment relationship has been described in a variety of ways by researchers and parents alike. For example, researchers have described the attachment relationship by means of referring to standardized assessments for classifying attachment styles, whereas parents have described concerns about whether they could come to love or bond with the adopted child, and whether this child would be able to do the same (Schmidt et al., 1998).

In general, however, the term attachment refers to the affectional bond between an infant and his or her primary caregiver that promotes a sense of security and comfort (Bowlby, 1969; Feeney, Passmore, & Peterson, 2007). Studies of parents and their biological children have
revealed that in general, there is a correspondence between the attachment style of the parent and the attachment style of the child (van Ijzendoorn, 1995a).

However, there is a lack of information pertaining to how attachment styles are transmitted across generations; this lack of information has been deemed the *transmission gap* by researchers. This paper focuses on what is known about the transmission gap as it applies to cases of domestic and international adoption, with a specific focus on how families who adopt children may form a strong attachment relationship with these children so as to prevent disruption of the adoption. Transmission of attachment style—particularly in the case of secure attachment—is especially relevant to families who have adopted a child, as it is the hope of such families that a strong relationship will form in which the child “develops a sense of trust for the parents as well as seeks and needs shared time together” (Roberson, 2006, p. 728).

**Purpose of the Literature Review**

The purpose of this paper is to examine the literature on attachment and what is hypothesized about the intergenerational transmission of attachment styles between parents and their children. This will be a comprehensive review of attachment literature from 1969 to 2010, as well as literature during this time period specific to attachment relationships between parents and adopted children. The date of 1969 was chosen given its correspondence with the publication of John Bowlby’s first volume of his keystone work “Attachment and Loss.” Specifically, this review includes all articles referencing attachment relationships and attachment styles (e.g., secure, insecure, disorganized) in the context of domestic and international adoption. I particularly focus on existing recommendations and interventions for parents of adopted children, specifically with regard to forming a healthy and secure attachment relationship. In
order to gather a maximum amount of relevant information, search terms included “adopt*”, “attach*,” and “transmission gap.”

This review of the literature provides a solid background for exploring the need for improved guidelines and recommendations for both new parents of adopted children as well as mental health providers, particularly given the devastating consequences of adoption disruption. First, I discuss the legal and historical background of adoption, with a particular focus on adoption disruption. Next, I review relevant theory on attachment and internal working models. I then provide information on what is known about the transmission gap and how it applies to families with adopted children. Next, I provide specific suggestions based on existing literature for how adoptive parents can improve the attachment relationships with their children, and how mental health providers working with these families can provide an ideal environment for the exploration of and focus on attachment issues. Following these recommendations, I provide suggestions for future research in the domain of attachment relationships and adoption.

**INTRODUCTION TO ADOPTION AND DISRUPTION**

In order to better understand the impact of attachment and disruption within the realm of adoption, it is important to have some awareness of adoption law and related legal proceedings (i.e., adoption finalization). United States law permits each state to define who may adopt children and which children are legally available for adoption. In general, in the case of domestic adoption, any single adult or couple can be eligible to adopt. For example, in the state of Oregon, any adult over 21 who is single, married, or in a domestic partnership may adopt a child, provided that they meet certain eligibility requirements with regard to income and criminal history (Oregon Department of Human Services, 2010). However, in some states (e.g., Florida,
Mississippi, Utah), single parents or those who identify as gay or lesbian (singles and couples) are not permitted to adopt.

With regard to federal law, the Child Welfare Reform and Adoption Assistance Act of 1980 (P.L. 296-272) allowed for Federal intervention in foster care and adoption reform by emphasizing permanency planning (i.e., a focus on maintaining a child’s birth family, return of a child to their birth family as soon as possible, or making the child legally free for permanent placement in an adoptive home). This law was followed by the U.S. Adoption and Safe Families Act of 1997 (ASFA, P.L. 105-89), which was in part designed to correct problems in the foster care system that deterred the adoption of children with special needs (Child Welfare League of America, n.d.; Freundlich, 2009). Although the definition of “special needs” varies by state, Oregon defines “special needs” adoptees as those who are over 8 years old, part of a sibling group, an ethnic minority, and/or experiencing a physical, mental, and/or emotional disability (Special Needs Adoption Coalition, 2010). Other states include other factors such as having a history of abuse or neglect and/or prenatal exposure to drugs or alcohol (Adoption Exchange Association, 2000).

The ASFA also allowed for financial incentives for increasing adoptions of special needs youths to be made available for states who documented reasonable efforts to either reunify children with their biological parents (unless aggravated circumstances such as abuse or parental incarceration had occurred) or place a child for adoption (Berrick, Choi, D’Andrade, & Frame, 2008). In addition to ASFA, another law pertinent to domestic adoptions is the Fostering Connections to Success and Increasing Adoptions Act of 2008. This act provides additional incentives for adoption, increases existing incentives for kinship guardianships, and provides
incentives for adoption agencies to provide trainings to potential guardians as well as child welfare staff (U.S. DHHS, 2008).

**Adoption Procedures**

Once prospective parents are found eligible by the U.S. government to adopt a child, the first step in adoption is for prospective parents to decide whether to adopt domestically (i.e., within the United States) or internationally. In the case of domestic adoptions, parents may chose to go through “traditional” means; that is, adopt through an agency or an intermediary (i.e., doctor, lawyer). They may also choose to go through non-traditional means; that is, to adopt through a foster care placement, a family member, or engage in an open adoption in which biological parents are allowed contact with the adoptive family. Some parents may be able to view and pursue adoption of available children through the internet, but this process still requires that prospective parents follow state and federal policies with regard to child trafficking laws (i.e., buying or selling a child).

Alternatively, parents may choose to adopt internationally. Parents choosing to adopt internationally must contend with some similar issues as their peers who adopt domestically, such as whether the child’s parental rights have truly been terminated, whether the adoption agency is legitimate and willing to provide them with postadoption support, and whether the child’s biological parents will want him or her back, or want contact with the child. These parents must also be attuned to special complications, such as coping with a lack of information about the child’s biological parents (e.g., whether the mother was using drugs during pregnancy or was subjected to physical abuse). These parents may also be faced with limited information about their adoptive child; for example, whether the child was abused or neglected or has medical complications (i.e., Fetal Alcohol Syndrome). Finally, these parents must also navigate
unique issues relevant to international adoption, such as the child’s transition to a new culture and potentially new language, maintenance and development of their racial and ethnic identity, and how family and community members will react to their adoption.

**Domestic adoption: Procedures.**

With regard to the process of domestic adoption, first, children must be identified as legally eligible for adoption (Cole & Donley, 1990). These children are typically placed into one of two groups; a) those whose parents voluntarily surrender them or terminate their parental rights, or b) those whose parents have their rights involuntarily terminated. Parents attempting to adopt children from either of these groups must complete various tasks, such as the homestudy process.

According to Roberson (2006), prior to adopting a child, it is expected that parents have completed the homestudy process, in which they are evaluated in a variety of domains, including their family life, finances, physical and mental health, and expectations of parenting and post-adoption support (Silverman & Feigelman, 1990). With respect to post-adoption support, prior to the 1960s, agencies were expected to stop their involvement, as this was considered to help “normalize” the family (p. 291). However, currently, it is evident that many children and families will need professional support and additional resources after legal finalization.

Other elements of the homestudy process include orientation and training procedures, interviews of prospective parents, background checks, and home visits (Child Welfare Information Gateway, 2009; 2010). In addition, many agencies require that prospective parents write an autobiographical statement or story of their life as well as submit references (Child Welfare Information Gateway, 2010). Prior to or during this time, many agencies allow parents
to specify the age, gender, race, and level of disability of a child they would like to adopt (Silverman & Feigelman, 1990).

Presumably, while prospective parents are undergoing the homestudy process and other related activities, child placement specialists have the opportunity to see the child and evaluate his or her health and developmental status in relation to the perceived match with the prospective parents. Some agencies have a full disclosure policy, in which placement of the child requires that parents are presented with the child’s full medical, social, and relational background (Silverman & Feigelman, 1990). During this process, some agencies allow parents a chance to ask questions about the child’s current and potentially future behaviors; parents are also often counseled as to what kinds of behaviors are common to adopted children, the child welfare system, parenting techniques, and nearby resources (Brodzinsky, 1987, as cited in Silverman & Feigelman, 1990). Some parents may also be given trainings about any special needs of prospective children. Another aspect of the pre-finalization process often includes “showing” the child to prospective parents. This process often includes a chance for the parents to observe the child without introducing the two, which is hypothesized to reduce the risk of rejection to the child. The showing process may be used more frequently in the case of children who are “atypical in appearance or behavior” (Silverman & Feigelman, 1990, p. 288).

After the social worker or child welfare professional involved is relatively certain as to the prospective parents’ interest and potential fit with the child in question, the two parties are typically given a chance to meet (Silverman & Feigelman, 1990). If the initial meeting goes well, depending on state and agency policies, the child may have more extended visits or be placed with the prospective parents. United States law requires that a child be placed in his or her adoptive parents’ home for a period of time before the adoption can be legally finalized (Coakley
During this time, the placement is supervised by a licensed clinical social worker who is tasked with assessing the parents’ readiness and commitment to adopting as well as their perceived fit as parents with the youth in question (Child Welfare Information Gateway, 2010; Roberson, 2006). Typically, this process occurs between 6 months and 1 year, with the social worker continuously monitoring the perceived fit between the child and his or her adoptive parents (Cole & Donley, 1990; Silverman & Feigelman, 1990).

As adoptions must be legally finalized by the court system (i.e., usually in juvenile or family court), the pre-finalization process can take up to 1 year. Some agencies and states require that families turn in additional paperwork. For this reason, families often retain an attorney. Next, a judge reviews the relevant materials and evaluates them, after which time, the adoption is legally finalized (Silverman & Feigelman, 1990).

Given the complicated nature of the homestudy and pre-finalization process, it is not surprising that many families find themselves unprepared or overwhelmed upon the arrival of a new child. In addition, the pre-finalization process is also financially difficult for many families; public adoption can cost as little as $2,000, whereas private adoptions typically cost over $10,000 (Silverman & Feigelman, 1990). The situation is often complicated by the fact that many parents report feeling a lack of support or information provided by child placement specialists—both before and after adoption (Coakley & Berrick, 2008; Schmidt et al., 1988).

**International adoption: Procedures.**

Policies with regard to international adoptions likely vary from state to state, with some states requiring additional paperwork or specific homestudy requirements. In addition, depending on the country from which the child is adopted, the adoption may be subject to the regulations of the Intercountry Adoption Act of 2000 (Oregon Department of Human Services; OR DHS,
2007). The Intercountry Adoption Act (IAA; Adoption.com, n.d.) is a Federal policy implemented to ratify and ensure that adoption agencies follow the 1993 Hague Convention on the Protection of Children and Cooperation in Respect to Intercountry Adoption (Hague Convention; AdoptionServices.org, n.d.). The Hague Convention is an international agreement between approximately 75 countries designed to enforce guidelines with respect to international adoption, with a particular focus on protecting children and families by providing accurate information and preventing the abduction and sale of children (U.S. Department of State, n.d.). Adoption of children from countries who are signatories of the Hague Convention is known as a Convention adoption.

The U.S. ratified the IAA in 2000; however, it was not until 2007 that the U.S. ratified the Hague Convention on International Adoption (U.S. Department of State, n.d.). The Hague Convention entered into force for the U.S. in April of 2008, at which time the U.S. joined approximately 75 other countries that had joined the Convention. As such, after April 2008, adoptions between the U.S. and Hague signatories were required to meet Convention policies. Convention adoptions not only require that prospective families adopt through an accredited agency, but also that their agency prepare a home study report that meets both State and Federal requirements. In addition, parents are required to attend 10 hours of parent education, file various petitions (i.e., Form 1-800A), and submit a visa application prior to foreign adoption or legal custody proceedings (U.S. Department of State, n.d.). Furthermore, parents adopting from a Convention country are given an adoption services contract prior to the adoption which outlines the agency’s policies, fees, and history. Finally, these parents are also given access to the child’s medical records and given at least 2 weeks to review these records.
Parents who adopt from a non-Convention country (e.g., Argentina, Japan, Haiti) are not afforded some of the same protections (e.g., verification that the child is eligible for adoption, adoption contract), nor subject to the same regulations as those adopting from Convention countries (U.S. Department of State, n.d.). However, these parents are also subject to a home study and must provide various documentation (i.e., Form I-600), but they may not be mandated to participate in parent education, nor is it required that they be provided with the child’s medical records or submit their visa applications prior to the foreign adoption or legal custody proceedings (U.S. Department of State, n.d.).

**Adoption Disruption**

Termination of an adoption can take place both before and after the legal finalization of the adoption process. The term *disruption* describes situations in which a child is returned to the custody of the child welfare system prior to the legal finalization of the adoption. In contrast, the term *dissolution* refers to situations in which a child is returned to the custody of the child welfare system after the legal finalization of the adoption (Festinger, 2002). In practice, however, the term *disruption* is typically used to denote the failure of a placement at any point (e.g., before, during, after) in the legal process- including when a birth mother revokes her consent of the adoption (Jenista, 2005; Schwartz, 2006). The disruption rate is hypothesized to be higher for adolescents and older adoptees (e.g., those older than 3 years) in comparison to their younger peers. For instance, some authors have noted disruption rates as high as 26-47% for adolescents with severe behavior problems and 15% for youths with special needs (Berry & Barth, 1991; Festinger, 1990; Rosenthal, 1993).

Other proposed correlates of disruption include previous disruptions of adoptive placements; abuse history; increased time spent in foster care; inadequate preparation of the child
and family for the adoptive placement; lack of supervision, support, or services after the adoption; children’s or parents’ expectations not being met; and removal from foster care due to inadequate parenting (Partridge, Hornby, & MacDonald, 1986, as cited in Bruning, 2007; Schmidt, 1986, as cited in Festinger, 1990; Schwartz, 2006). Although more recent research is necessary, factors generally found to be unrelated to adoption disruption include race and religion of the adoptive children and parents (Festinger, 1990). Findings relating to disruption have been inconsistent with regard to the impact of the gender of adopted children, the presence of biological children in the adoptive family, sibling sets and age of the adoptive parent (Festinger, 1990; Smith, Howard, & Ryan, 2006, as cited in McRoy & Madden, 2009).

Overall, many authors (cf., Berry & Barth, 1991) tend to estimate a disruption rate of approximately 25% for children adopted as adolescents and 8-15% overall (Barth, Berry, Yoshikami, Goodfield, & Carson, 1988; Coakley & Berrick, 2008; Festinger, 1990; Stolley, 1993). Festinger (1990) noted that difficulties in tracking long-term outcomes as well agency policies regarding tracking previous disruptions and dissolutions has likely made it difficult to estimate disruption rates. Other difficulties estimating adoption disruption include high turnover rates of social workers; caseworkers for some agencies have been noted to have caseloads in excess of 100 youths (Festinger, 1990, as cited in Schwartz, 2006). Notably, no recent national estimates of U.S. adoption disruption are available; the majority of information regarding disruption is from the 1990s (Coakley & Berrick, 2008). As such, it is unclear whether adoption disruptions have increased or decreased since this time period.

Consequences of adoption disruption.

Not surprisingly, adoption disruption is often experienced as painful for adoptees—particularly those who are older, as presumably they have had more time to attach to potentially
more than one caregiver (Schwartz, 2006). Additionally, adoption disruption may reinforce a child’s belief that he or she is unwanted. Other effects for younger children may include anxiety, distress, and bewilderment—particularly if the disruption is abrupt. Schwartz (2006) hypothesized that disruption of a youth prior to age 6 months may result in “comparably less damage to the child,” whereas adoption disruption after this point may be increasingly traumatic given that by this time, the infant may have started to form an attachment relationship with his or her caregiver (p. 67). Similarly, Schwartz (2006) hypothesized that for adolescents, adoption disruption may be associated with increased feelings of disconnectedness, low self-esteem, guilt, shame, and rejection, as well as splitting of the self into good/bad, problems in identity development, and issues around loss and grief.

Overall, it appears as though for youths who experience a disrupted adoption, the consequences may be severe. For example, disrupted adoptions have been linked to higher rates of future disruptions (Berry & Barth, 1991). Specifically, particularly for older children, multiple placements carry a high risk. Barth and colleagues (2007, as cited in Barth & Chintapalli, 2009) estimated that for each additional year of age, a child’s likelihood of a placement change increased by 4%. Furthermore, youths who experience a disrupted adoption have not only experienced a separation from their biological family, but also a second separation (and rejection) from their former adoptive family. These youths, many of whom have already spent lengthy periods of time in foster care, may again receive the message that they are “no good” by being moved to another caregiver (Schwartz, 2006, p. 46).

Surprisingly, there is a lack of information available in the literature regarding what services (if any) are offered to youths or families after they experience a disrupted adoption (Elbow & Knight, 1987; Festinger, 1990). Elbow and Knight (1987) hypothesized that these
children experience a loss of valued persons, despite perhaps having been viewed as “unattached” or ambivalent about their adoptive parents. Elbow and Knight recommended several strategies for assisting children and families experiencing disruption, such as a disruption conference, disruption story, and goodbye ceremony.

Children experiencing adoption disruption are not the only ones forced to face unpleasant consequences. As adoption disruption is not looked upon favorably by the general public, the former adoptive parents of these youths are often left without much support in coping with their grief, shame, and guilt (Hollingsworth, 2003). In their interviews with parents who had experienced a recent adoption disruption, Schmidt et al. (1988) highlighted that these parents frequently report a sense of loss—first, of the child they had adopted, and second, of support in the community. Schwartz (2006) has indicated that for many parents, “disrupted adoption is like the death of a child” (p. 63).

**Parents’ experiences of adoption disruption.**

Some authors (cf., Elbow & Knight, 1987) hypothesized that these parents, particularly those experiencing infertility, may experience role loss in the sense that they view themselves as incapable of a) meeting the formerly adopted child’s needs as well as b) parenting children in general. Brinich (1990) hypothesized that parents experiencing infertility not only must cope with role loss (i.e., mourning the loss of their imagined biological child), but also with losses associated with fantasy images of the child they adopt. These and other adoptive parents must navigate the discrepancy between the real adopted child, and the fantasized adopted child. Furthermore, not surprisingly, other children in the family may experience confusion, bewilderment, and anxiety when an adoptive sibling experiences an adoption disruption; these children may fear that they, too, will be taken away from the family (Schwartz, 2006).
In general, parents experiencing disruption cited attachment difficulties as a major contributor to the disruption; some parents reported feeling as though the children were having difficulties “letting go” of their birth parents, whereas others indicated that they had not been given enough time to “get used to each other” before court and agency deadlines had passed (Schmidt et al., 1988, pp. 125-126). Finally, many parents reported not being made aware before the placement of the severity of the behavior problems their children had, and indicated that they were uncertain whether the child’s historical information was either unavailable to or minimized by the adoption agency (Schmidt et al., 1988).

Other authors (cf., Bruning, 2007) have recommended that the family engage in treatment prior to disruption, if possible, to promote trust and the formation healthy relationships. If, however, treatment is not started prior to disruption, families navigating this crisis may be supported professionally, though the emphasis should be on the child. Bruning (2007) recommended that parents create and rehearse a script so as to minimize the likelihood of saying something that they may regret, or sending a message to the child that he or she is to blame. Parents will likely need support during this process, as their fantasies about “rescuing” a child are coming to an end; however, as Brinich (1990) noted, “supporting the family…is critical, but the reality is that family members will still have each other- their home, their church, their community, and all that defines their lives together- while the child remains alone” (p. 171).

Overall, unfortunately, there is limited literature outlining the specific effects of adoption disruption. There is, however, literature outlining the deleterious effects of long-term foster care; including a) decreased educational outcomes, b) increased likelihood of homelessness, and c) increased endorsement of mental health symptoms such as depression and hopelessness (Berry & Barth, 1991; Ricks, 1985; Rubin, O’Reilly, Luan, Localio, 2007; Barth & Chintapalli, 2009). It is
unclear, however, whether these harmful outcomes are a product of multiple placements, disrupted adoptions, or other factors.

When adoption is not disrupted, it is hypothesized that adoptive parents are able to establish an attachment relationship with their children. Unfortunately, there is a lack of information regarding how parents transmit attachment styles (secure and insecure) to their biological children. Not surprisingly, there is even less information available with regard to how parents of adopted children may establish and transmit a secure attachment relationship to their children. Overall, given the relatively high prevalence of disrupted adoptions and the variety of negative outcomes associated with these occurrences, it is critical to examine more closely the means in which adoptive parents may establish and/or transmit a secure attachment style to their adopted children.

**HISTORY OF ATTACHMENT THEORY**

Attachment theory was initially developed by John Bowlby in an effort to explain the nature of a child’s tie to his or her primary caregiver as well as the impact of that tie on adjustment and behavior over the lifespan (Bowlby, 1969; Fraley, 2002). In addition to examining the nature of the bond between a child and his or her caregiver, Bowlby was also interested in children who had experienced a loss of their primary caregiver(s) early in life. He hypothesized that separation from an attachment figure after the second half of the first year of life would be psychologically harmful, given that the attachment relationship is hypothesized to develop sometime during this time period. Specifically, Bowlby (1969, 1982) hypothesized that a child’s attachment behavior becomes organized toward a caregiver sometime between 6 and 12 months of age. Bowlby further found that infants adopted between 6 and 9 months of life showed little or no socioemotional damage (Bowlby, 1982; MacLean, 2003).
Bowlby conceptualized attachment as an evolutilional and biological process in which humans have developed behavioral and motivational systems designed to ensure their protection and survival despite their physical vulnerability. The attachment system is one of these behavioral systems dedicated to meet this end, particularly by establishing social connections which can be utilized in times of distress (Shaver & Mikulincer, 2009). As such, the attachment system becomes activated when infants are distressed (e.g., hungry, fearful, separated from their caregiver). The activation of this system triggers care-seeking or “attachment behavior” designed to achieve close proximity (and, thus, survival and safety) with a protective caregiver. This behavior in infants is often demonstrated verbally (e.g., crying, calling), and nonverbally (e.g., physical behaviors such as crawling or reaching out toward the caregiver), and has been called the attachment system’s primary strategy (Bowlby, 1969). Furthermore, the activation of the attachment system continues until protection and proximity with a caregiver are achieved, at which time the attachment system is deactivated and the infant can calmly continue about his or her other activities.

Importantly, the attachment system is a reciprocal process, wherein both infant and caregiver behaviors influence the other. Bowlby (1973) especially focused on the infant’s actual lived experience (i.e., behavioral interactions with mother) in considering the development of attachment. Specifically, the attachment behaviors in which these infants engage are reciprocally influenced by their caregivers’ (specifically, their mothers’) responses. The majority of the attachment literature focuses on mothers as the primary caregiver (and therefore, attachment figure), perhaps because many authors (cf., Bretherton, 2005) seem to view the mother as the primary caretaker in most situations. However, some researchers (cf., Pietromonaco & Barrett, 2000) have astutely noted that children often have different attachment patterns with their
mothers than with their fathers and consequently, for some children (particularly those without mothers), fathers may serve as the primary attachment figure.

Of course, caregivers’ responses to infant behaviors vary. Some caregivers are predictable, protective, and sensitive, whereas others are unpredictable, insensitive, or rejecting (Howe, Dooley, & Hinings, 2000). Importantly, given their dependence on caregivers for survival, infants are left to adapt to and cope with their caregivers’ behaviors the best way that they can. Consequently, the attachment behaviors demonstrated by young children represent an attempt to cope with their environment and ensure their own survival.

Measuring and Classifying Attachment Styles

Researchers have had much success in observing and classifying infant attachment styles. The Strange Situation (SS; Ainsworth & Wittig, 1969) is considered the gold standard in measuring infant attachment style. In addition to classifying infant attachment style, the SS also can be used to gain understanding of the mother’s likely parenting behaviors (Demo & Cox; Roberson, 2006). The SS entails a series of separation and reunification procedures in which infants are observed and categorized on the basis of their responses to being separated from and reunited with their mothers. Importantly, attachment security as measured by the SS tends to be stable over time (i.e., up to 64-78%; Waters et al., 2000; van Ijzendoorn & Bakermans-Kranenburg, 1997), particularly in the absence of stressful life events.

Overall, the SS illustrates three major styles of infant attachment: a) secure, b) avoidant, and c) ambivalent. A fourth category, disorganized, was developed by Main and Solomon (1986) after initial difficulties placing some infants into one of the three other categories. Overall, approximately 65% of infants are classified as secure, whereas 20% are avoidant, 15% are ambivalent, and 5% are disorganized (Roberson, 2006). In general, during the SS, infants who
are classified as *securely attached* tend to explore the playroom while in the presence of their caregiver, yet show signs of missing her upon her absence. These infants actively seek interaction and are comforted by their mother’s return and later go on to continue playing.

Insecure infants, on the other hand, tend to display one of two secondary attachment strategies (e.g., deactivation or hyperactivation). First, *avoidant* infants typically explore the playroom yet show a lack of response to their caregiver’s absence. These infants also show a lack of response when their caregiver returns, and at times actively ignore or avoid the caregiver by looking away or playing with toys. Avoidant infants are thought to engage in minimization- or deactivation- of attachment behavior (van Ijzendoorn, 1995a). Second, *ambivalent* infants are often anxious immediately upon arrival into the playroom. These infants typically appear uninterested in exploring the playroom and instead tend to show a preoccupation with the whereabouts of their caregiver throughout the entire procedure. Upon their caregiver’s absence, these infants display great distress and yet are typically not comforted by their caregiver’s return. More specifically, these infants may seek out their caregivers for comfort yet resist her attempts to comfort them. Ambivalent infants are thought to show a hyperactivation, or maximization, of attachment strategies.

Finally, a fourth classification- *disorganized*- is given to infants who fail to show a consistent strategy of attachment behaviors. These infants may display disorganized behavior such as stereotypical movements, or freezing with a disoriented facial expression in the presence of their parents (van Ijzendoorn, 1995a). These infants may also display behaviors such as repeatedly attempting to approach the caregiver without ever succeeding in making contact, or failing to approach their caregiver when distressed. Generally, the disorganized behaviors
displayed by these infants are thought to reflect fear or confusion toward the caregiver (Madigan, Bakermans-Kranenburg, van Ijzendoorn, Moran, Pederson, & Benoit, 2006).

With regard to adults, the Adult Attachment Interview (George, Kaplan, & Main, 1985) is a semistructured interview in which the participant is asked to reflect on early attachment relationships and experiences. Individuals classified as secure or autonomous tend to explore their feelings and experiences in a coherent manner. Although these individuals may have experienced difficulties or trauma, they are able to integrate their past and present experience in a coherent dialogue that is lacking in defensive exclusion, errors of relevance (e.g., adding irrelevant detail), or errors of quantity (e.g., insufficient or excessive detail; Bakermans-Kranenburg & van Ijzendoorn, 1993; George, 1996). That is, much like securely attached infants, these adults are able to maintain behavioral and attentional organization while trying to resolve distress (Madigan et al., 2006).

Next, dismissing adults tend to describe their experience in highly positive terms yet give evidence to the contrary later on in the interview. These adults also often insist that they are unable to remember childhood experiences or that they were unaffected by such experiences. On the whole, much like avoidant infants, these adults tend to minimize their focus on attachment relationships and experiences (van Ijzendoorn, 1995b). In contrast, adults who are classified as preoccupied tend to show excessive focus or attention on childhood attachment experiences. Similarly to infants who display ambivalent attachment styles, these adults demonstrate a preoccupation with their caregivers. These adults often become confused, angry, or lost during the context of the discourse and may give excessive yet unclear details about their attachment experiences.
Finally, adults who are given a primary classification of one of the other three styles (e.g., secure/autonomous, dismissing, preoccupied) may also be classified as unresolved/disorganized with respect to specific traumatic experiences such as loss or abuse. These adults may demonstrate lapses in reasoning or discourse, such as speaking in the present tense about an individual who has died, or revealing beliefs that they somehow caused the trauma they experienced (George, 1996). Importantly, although the terms used to classify adult or infant attachment styles do not exactly match up, the behaviors displayed by each group are similar. Furthermore, when used in conjunction across longitudinal studies, the SS and AAI classifications tend to remain consistent (i.e., correspond; Demo & Cox, 2000; van Ijzendoorn & Bakermans-Kranenburg, 1997; Waters, Merrick, Treboux, Crowell, & Albersheim, 2000).

**Internal Working Models and Attachment Strategies**

Importantly, in addition to developing attachment behaviors, it is hypothesized that over the first few months of life infants also begin to develop expectations (i.e., internal working models; IWMs) for their caregivers’ behavior, that is, whether they can rely on their caregivers for protection or not (Clubb, Mason, & van Leeuwen, 1991). Overall, IWMs are thought to contribute to attachment strategies by guiding infant behaviors which a) are consistent with an anticipated parental response and b) create an increased likelihood of survival. In general, it is hypothesized that infants with IWMs emphasizing a lack of safety and trust toward attachment figures are more likely to be labeled as insecurely attached than their peers with IWMs emphasizing more optimistic expectations for parental behaviors.

Specifically, researchers believe that infants who experience responsive, consistent, and sensitive caregiving form expectations that they can rely on others for protection and support. Regardless of the nature of the caregiving, however, researchers have posited that these
expectations form the basis for “internal working models (IWMs)” - or mental representations - of themselves and others (Roberson, 2006). In general, researchers hypothesize that both attachment behaviors and IWMs of the self and others influence the nature and outcomes of future relationships- including relationships with intimate others, close friends, coworkers, and offspring (Shaver & Mikulincer, 2009).

**Theoretical background: IWMs.**

Before describing the nature of expectations (i.e., IWMs) formed by infants in response to caregiver behaviors, it is necessary to delve further into the theoretical underpinnings of these expectations. For example, Pretorius (2010) noted that, in addition to acting as a filter or moderator of environmental and genetic effects on attachment, IWMs may be primarily unconscious. Others (cf., Bowlby, 1980; Pietromonaco & Barrett, 2000) have also hypothesized that IWMs may operate out of conscious awareness, particularly in that they serve as a lens through which future experiences are interpreted and responded to. Unfortunately, it is difficult to measure processes that may be occurring unconsciously (Belsky, 2005).

With regard to the construction of IWMs, through early relational experiences, infants develop expectations about the way things are likely to be; these expectations develop into mental representations of the self and of others. These expectations often take the form of relational “scripts” (Connor, 2006, p. 174). Importantly, these scripts, or IWMs, set the stage for later functioning in terms of both affect regulation and future relationships. Alexander and Warner (2003) emphasized the importance of IWMs across the lifespan; these authors noted that “IWM(s)… represent a strategy of affect regulation that can impact intrapsychic processes, subsequent interpersonal interactions, and even the ability to reflect upon and alter behavior patterns that were learned in the past” (p. 243).
Importantly, infants are hypothesized to build IWMs of attachment figures based on their experience with that person (Bowlby, 1969). As a result, infants are hypothesized to have many IWMs, given that they are likely to form attachment relationships with multiple caregivers. Consequently, infants who receive consistent caregiving from the attachment figures with whom they interact may be more likely to have more unified IWMs and relational scripts. These IWMs are likely to involve mental representations of the self as lovable and of others as responsive and sensitive (Bowlby, 1973). In contrast, infants who receive inconsistent or insensitive care are forced to work overtime; they must develop multiple models of the self and others based on their relational experiences with caregivers who act in unpredictable ways.

It is also important to understand the possible purpose, content, and structure of internal working models (IWMs). Although researchers have had difficulty measuring IWMs, it is thought that IWMs have construct validity and some predictive validity with regard to positive self-concept and self-regulation (Goodman, 2004). Johnson, Dweek, and Chen (2007) attempted to empirically measure IWMs in the form of gaze latency to novel stimuli. More specifically, these authors hypothesized that securely attached infants (e.g., those with IWMs emphasizing the availability and predictability of caregivers) would spend more time looking at novel “unresponsive” stimuli- in this case, stimuli depicting a mother blatantly ignoring her infant’s needs- as opposed to “responsive” stimuli in which a mother is depicted as returning to her crying infant, rather than walking away from it. Although the differences were not statistically significant, the secure infants did spend more time looking at the “unresponsive” mothers than the responsive mothers. Johnson et al. (2007) noted that this result was at least partially supportive of the hypothesis that the type of IWM (e.g., secure, insecure) could be behaviorally manifested. Johnson and colleagues noted that infants with different forms of IWMs, including
different expectations of caregivers’ responsiveness, did in fact behaviorally respond (that is, stare longer) when presented with an event inconsistent with their IWM of attachment.

In addition, it is important to understand that rather than being static and simplistic, IWMs are considered to be dynamic and complex. As such, the purpose of IWMs is to anticipate, predict, and interpret ongoing experience and use it as a guide for one’s own behavior (Bretherton, 1990; Fivush, 2006). It is hypothesized that during the last quarter of the first year of life, right around the time infants gain an understanding of object permanence, translation of behavioral patterns into IWMs occurs (Bretherton, 1990). Of course, this process is hypothesized to be largely unconscious (Pietromonaco & Barrett, 2000). Given the unconscious nature of IWMs and that they are likely formed during infancy, it is thought that IWMs are arranged in a hierarchical fashion from the top down (e.g., from general to specific; Bretherton, 1990; Fivush, 2006; Pietromonaco & Barrett, 2000). This concept will be explored in more depth in the next section.

**Basic assumptions about IWMs.**

Fivush (2006) emphasized four major assumptions about IWMs. First, she proposed that IWMs emerge from early sensorimotor experiences based on actual caregiving behaviors. Specifically, she highlighted that rather than creating models or expectations based on a series of specific episodes, infants form generalized expectations about future events based on their very first experience with an event. Given what is known about infant development (particularly, that infants focus on similarities to previous experiences and ignore differences), it makes sense that IWMs would be formed in a “top-down” hierarchical manner, with very young children having less elaborate, less complex, and less hierarchical models than their older peers (Bowlby, 1980; Fivush, 2006). Other authors (cf., Pietromonaco & Barrett, 2000) have supported the idea of a
hierarchical model for IWMs. Specifically, these authors have emphasized a general-to-specific process of IWMs, such that over time, IWMs become content and context-specific. As such, the earliest representations forming the top level of the hierarchy should contain “default values for what usually happens,” whereas the lower levels should contain conditional, optional, or discrepant pathways from the original (e.g., default) representation, such as episodic memories of specific attachment-related events (Fivush, 2006, p. 286).

Fivush (2006) also posited that IWMs provide representations of self and others that are generalized across people and contexts as the infant becomes older, thus becoming relatively stable over time. Given that IWMs become more and more specific over time, and are based off of a generalized or core “default” value, it would make sense that the most general levels of these models may be resistant to change (Bowlby, 1980). In fact, Ainsworth (1979) hypothesized that IWMs are relatively stable (albeit potentially sensitive to change) by as early as age 12 months. However, other researchers (cf., Levy & Blatt, 1999) have highlighted the within-group diversity between different attachment styles as evidence to the contrary. Overall, although differences in opinion exist as to the ability of IWMs to change over time, most researchers have emphasized that individuals would need much experience with events that deviate from their “default” expectations in order for modifications to generalized IWMs to take place.

Finally, Fivush’s (2006) fourth assumption is that IWMs are thought to be transmitted across generations. She described language as an essential player in the likelihood of the transmission of similar IWMs being transmitted from primary attachment figures to infants across generations. Other authors (cf. Bretherton, 1990) have posited the idea that IWMs may be likened to schemas which are incorporated into both long-term and working memory. The transmission of IWMs from mothers to infants is hypothesized to be one potential pathway for
the transmission of attachment styles across generations (Pietromonaco & Barrett, 2000). As such, the understanding of IWMs is essential in the process of exploring the phenomenon of the transmission gap, which is the focus of this paper.

**Primary and secondary attachment strategies.**

Overall, as described by Shaver and Mikulincer (2009), it is thought that when an attachment figure is sufficiently available, responsive, and sensitive to the infant’s efforts to obtain proximity and protection, the infant is likely to develop expectations that a) others can be depended upon for help in the event of distress, b) others will respond supportively to requests for help, and consequently, c) the world is a safe place to explore with confidence. As such, these infants are likely to develop IWMs of others that emphasize safety, trustworthiness, and reliability. They are also more likely to develop confidence in their own abilities to successfully and competently navigate their environment, and that they are worthy of the love and support of others.

On the other hand, it is thought that when an attachment figure is not generally responsive (emotionally or physically) to an infant’s needs- such as caregivers who are poor at providing care in times of distress, or poor at providing a secure base from which the infant can explore- then the attachment system is disrupted and remains activated. Consequently, not only are infants not relieved of their initial distress, but they also begin to develop doubts about whether their need for security will be met (Shaver & Mikulincer, 2009). More specifically, these infants are more likely to develop IWMs of others that involve mistrust, uncertainty, and a lack of safety. They are also likely to develop IWMs of self involving doubts about a) their own competence to successfully navigate their environment as well as b) their own worthiness to
receive protection and love. As a result of the continued activation of the attachment system, these infants often turn to specific secondary attachment strategies.

As previously mentioned, two secondary, or insecure, attachment strategies have been emphasized in the literature (cf., Main, 1990; Shaver & Mikulincer, 2009): hyperactivation and deactivation. Hyperactivating strategies are typically the result of interactions with attachment figures who are unpredictably responsive. As Shaver and Mikulincer (2009) noted, infant attachment behaviors are placed on an intermittent reinforcement schedule which results in an increase of demanding, noisy, and energetic bids for attention and support. Given the intermittent reinforcement of the infant’s bids for responsive caregiving, the attachment system is placed on perpetual “alert” and remains continuously activated. Unfortunately, this results in an exaggerated appraisal of both the unavailability of the attachment figure but also of possible danger, as well as increasingly intense demands for attention and care.

In contrast, deactivating strategies are also a response to attachment figure unavailability—specifically, unavailability that is paired with the punishment or disapproval of the infant’s bids for proximity. As such, the infant learns to suppress signs of vulnerability and rely on their own means to attain their needs. Consequently, the attachment system is deactivated without the infant obtaining a sense of protection and security. Overall, infants adopting these strategies are more likely to avoid close relationships, particularly those that entail depending on others, and distance from other threats to the reactivation of the attachment system.

**Differing models of attachment representations.**

The extent to which attachment strategies and styles are stable across time or subject to change has been a subject of debate in the literature, with some authors arguing that a) early attachment representations or IWMs are updated with ongoing experience, and others arguing
that b) IWMs may be updated, but the IWMs developed in infancy remain unchanged and influence interpersonal interactions across the life span. Notably, this debate is strikingly similar to the debate surrounding an attachment “sensitive period” but differs given its emphasis on IWMs. Fraley (2002) wrote extensively about the debate between what he called the revisionist perspective and the prototype perspective.

**Revisionist model.** Some researchers have emphasized that although the attachment relationship begins to develop in the first year of life, it likely continues developing for the first 5 or 6 years of life and also continues to be sensitive (although less and less so over time) to environmental changes (Bowlby, 1973; van Ijzendoorn, 1995b). Following this line of reasoning further, Fraley (2002) noted that the revisionist hypothesis holds that early attachment representations (or IWMs) are continuously updated and revised over time and experience, and, as such, may or may not correspond with adult attachment representations. In this model, early IWMs are flexible and may be updated when experience is in contrast with existing expectations. For example, if an individual were to incorporate an early IWM emphasizing the availability of caregivers and then have a series of experiences to the contrary, his or her initial IWM of others may be updated to reflect the more recent experiences. Furthermore, Fraley emphasized that “the revisionist model does not necessarily predict stability between infant and adult attachment patterns because the caregiving environment may change substantially over time” (p. 125). Specifically, he noted that the caregiving environment is invariably subject to change due to external factors such as parental loss, serious illness, or moving to a new town or school.

With further regard to the revisionist model, Fraley (2002) also hypothesized that in addition to environmental factors (e.g., change in caregiving environment), individual factors are likely to play a role in the potential updating of early IWMs. Specifically, he highlighted that
whereas the environment may support change in early IWMs, in contrast, individual factors may support stability and continuity of early IWMs. Fraley emphasized that early IWMs may be less susceptible to change because individuals tend to both a) seek environments and individuals that are consistent with their expectations, and b) elicit behaviors from these individuals consistent with their IWMs. However, should an individual be subject to an environment or substantial experience with individuals in contrast to their early IWMs, early IWMs may be updated to reflect the more recent experience.

With further regard to the revisionist hypothesis, von Sydow (2002) described IWMs as internalized relationship experiences. This description matches closely to that of Bowlby’s; Bowlby believed that one’s internal world was reflective of his or her experiences in the external world (Connor, 2006). In general, it appears that Bowlby would have likely supported a revisionist model of IWMs; he emphasized the importance of early IWMs of attachment and indicated that these models “tend to persist relatively unchanged” in adulthood, yet also indicated that these models could be accommodated to fit a changing social reality (Bowlby, 1973, p. 235; Feeney et al., 2007).

Although Bowlby (1982) proposed that although IWMs tend to remain relatively stable; he emphasized that they are able to be changed through new relationship experiences. That is, he hypothesized that IWMs are dynamic- they are working models rather than stagnant models. Winnicott (2002) also viewed IWMs as relatively open to change. He emphasized that “what first appears at an early age needs a long period of time to become established as a more or less fixed mechanism in the child’s mental process” (p. 14). However, particularly because IWMs are hypothesized to form during the sensorimotor period, they may be less likely to change due to an
individual’s inability to access sensorimotor experiences later in life (Fivush, 2006; Schore, 2000; Zeanah & Zeanah, 1989).

Overall, according to the revisionist hypothesis, although attachment patterns and IWMs may be stable over time due to individual influence on the environment, early IWMs may also be subject to change due to external factors and experiences (positive or negative) contradictory to an individual’s expectations. Another finding that lends support to the revisionist hypothesis is the lack of 100% correspondence between infant and adult attachment style. That is, the revisionist hypothesis may be strengthened by the finding that some adults who were insecurely attached in infancy may obtain an earned secure attachment style through experiences with a supportive partner (van Ijzendoorn, 1995a; Main, 1999; Roisman, Padrón, Sroufe, & Egeland, 2002). Some authors (e.g., George, 1996) have suggested that an individual’s ability to bring unconscious processes (i.e., recognition of inconsistencies between internal and external experiences) into conscious awareness is the “key to change” with regard to the alteration of early IWMs (p. 421).

**Prototype model.** The prototype model, in contrast, also allows for the updating of some early attachment representations but emphasizes the relatively unchangeable nature of the more default IWMs formed in early infancy. That is, according to the prototype hypothesis, early IWMs continue to play a major role in relationships and thus greatly enhance the likelihood that early attachment styles will correspond with adult attachment styles (Fraley, 2002). Many authors (cf., Waters et al., 2000; van Ijzendoorn & Bakermans-Kranenburg, 1997) have suggested that the prototype model tends to be supported in studies using samples that have experienced relatively consistent, sensitive caregiving.
The prototype hypothesis likely draws in great part on psychoanalytic theory, specifically Freud’s notion that a child’s early relationship with his or her mother functions as a prototype for later relationships. In addition, as previously mentioned, many researchers (cf., Fivush, 2006; Pietromonaco & Barrett, 2000) have hypothesized a top-down hierarchical model for attachment representations, in which children seem to seek experiences and elicit reactions from others consistent with their general expectations of “what usually happens” (Fivush, 2006, p. 285).

Given that individuals seek environments consistent with their prototypes, it would seem that the stability of prototypes (or early IWMs) would be enhanced.

In general, the distinction between the revisionist and prototype hypothesis is somewhat muddled, as proponents of both sides point to schema confirmation theory as supportive of their hypothesis. Overall, however, the distinction between the two hypotheses appears to lie in the emphasis each places on the relative importance of early IWMs on later behavior. Whereas the revisionist hypothesis acknowledges the importance of early IWMs in shaping later behavior, it emphasizes that early IWMs may be updated and altered. In contrast, the prototype hypothesis allows for the updating of some early IWMs, but emphasizes that an infant’s earliest, or core, IWMs cannot be changed and consequently, likely play a direct role in influencing later behavior.

**Adoption and Attachment**

Even among adoptions that do not fail, both domestic and international adoptees are at higher risk for insecure and disorganized attachment than their non-adopted peers (van den Dries et al., 2009). Specifically, children adopted after age 1 are more likely to be classified as insecurely attached than their peers who were adopted prior to age 1 (van den Dries et al., 2009).
Overall, parents of adopted youths are faced with the task of creating a reciprocal relationship involving trust and security with youths who, at the very least, have been separated from their primary attachment figure. In addition, many of these youths have experienced abuse or neglect and/or are older when placed with their new families— all factors associated with increased rates of disruption (Coakley & Berrick, 2008). As such, an understanding of attachment theory is essential to providing these families with appropriate support so as to maximize the chances of successful integration of a new child into the family.

In addition to attachment disturbances, several researchers have suggested that adoptees are also more likely than their non-adopted peers to struggle with school achievement, externalizing behaviors, depression, and learning difficulties (Brodzinsky, Schechter, Braff, & Singer, 1984). In addition, youths who have spent time in institutional care (as is the case for many international adoptees) tend to fare worse than their peers in almost every domain. More specifically, in comparison to youths who have not experienced institutional care, these youths are reported to have lower IQs, poorer academic achievement, poorer health and physical development, problematic peer relationships, and a wide range of problematic behaviors (e.g., aggression, eating disturbances, stereotyped behavior, indiscriminate friendliness, and attentional difficulties (MacLean, 2003). Some authors (e.g., MacLean, 2003) have attributed some of these behavioral difficulties as an attempt to adapt to orphanage life. Authors (e.g., Verhulst, Althaus, & Versluis-den Beiman, 1999) have also emphasized the impact of these difficulties on the ability of these youths to successfully transition into their new families.

Unfortunately, children with behavioral difficulties and low IQs tend to have more difficulty forming attachment relationships with their adoptive parents, purportedly due in part to the impact of these behaviors on the parents’ ability to correctly and sensitively interpret and
respond to the signals the child is sending (Chisholm, 1998, as cited in MacLean, 2003). Furthermore, behavioral problems tend to increase parenting stress; increased parenting stress is hypothesized to be associated with lower parental sensitivity and consequently, increased risk of insecure attachment.

**The effects of early trauma.**

With further respect to insecure attachment, some researchers have hypothesized that children who experience early trauma—particularly those separated from their mother prior to the development of a separate self (i.e., children who have been separated from their biological mother at birth or early infancy)—carry with them a “primal wound” (Verrier, 1987, p. 77). For example, in her interviews with 15 adult adoptees, Verrier (1987) noted that a relatively persistent theme was a sense of profound emotional connection with the birth mother, despite a lack of conscious memory of this woman. She inferred that these adult adoptees had experienced not only a loss of the primary love object but also the “lost state of the Self” (p. 78).

Despite the higher prevalence of academic, emotional, and behavioral disturbances, reported feelings of loss even into adulthood, and other early adversities, research suggests that the majority of adopted youths are resilient and go on to successfully integrate into their new families (Brodzinsky et al., 1984). More importantly, these youths typically form secure attachment relationships with their primary caregivers. This finding is supported both theoretically and empirically. For example, Bowlby (1969, pp. xi-xii) suggested that children could attach to their mothers as well as a “permanent mother substitute” given that they experienced a mutually satisfactory, enjoyable, and continuous relationship. Other authors (cf., Singer, Brodzinsky, Ramsay, Steir, & Waters, 1985) found that, in comparison to nonadoptive
mother-infant pairs, most adoptive mothers and their infants developed secure attachment relationships as measured by the SS.

**Sensitive period.**

Many adoptive parents express concern over whether it is “too late” to develop an attachment relationship with their children. Early adoption researchers (e.g., Goldfarb, 1943, as cited in MacLean, 2003) supported the idea of a sensitive period. These researchers focused on institutionalized children and concluded that these youths were unable to develop attachment relationships with their adoptive parents given their tendency to behave in a withdrawn or removed manner with both family members and caseworkers. Youths in early research (cf., Goldfarb, 1943, as cited in MacLean, 2003) also appeared to be indifferent to threats of removal from the home or changes in foster care placements.

In addition, Bowlby (1953) initially supported the idea of a sensitive period for forming attachment; he initially claimed that if the opportunity to form an attachment relationship was delayed until after age 2.5, it was “almost useless” (p. 14). Later on, Bowlby claimed that the sensitive period for attachment likely extended through the decade after a child’s fifth birthday but emphasized that the development of an attachment relationship would become more difficult as the child got older (Bowlby, 1973; MacLean, 2003).

More recent research (cf., Hoffman, Marvin, Cooper, & Powell, 2006; MacLean, 2003; van den Dries et al., 2009) provides evidence to the contrary to the idea of a finite sensitive period of attachment. These researchers have emphasized factors such as maternal sensitivity and attachment-related interventions as potential candidates for change in attachment styles. Other researchers (cf., Chisholm, 1998, as cited in MacLean, 2003) have emphasized that there are several likely reasons that developing an attachment relationship may be more difficult for
children—especially those who have experienced institutionalization or abuse. First, parents who adopt older children may interpret the older child’s bids for proximity as developmentally inappropriate or “clingy” (rather than “cuddly”) behavior and consequently may be less patient or less willing to sensitively respond to this behavior. Second, many children who have been in institutional care do not initially display proximity-seeking behaviors such as smiling, making eye contact, or crying (Chisholm, 1998; MacLean, 2003). Others—particularly those with a disorganized attachment style—do not display proximity-seeking behaviors consistently or in a way that is recognizable to their caregivers (Hoffman et al., 2006). For example, these youths may not show signs of experiencing pain or signal parents upon waking up. As a result, parents may not know when and how to respond to their children.

**Adoptive parents as psychological parents.**

Some authors (cf., Roberson, 2006) have hypothesized that it does not necessarily have to be the biological parent who builds an attachment relationship with a child. Interestingly, in early research, these parents were considered to be less capable of forming an attachment relationship with children given that they were not the biological parents, and therefore, presumably would not excrete hormones and demonstrate behaviors associated with mothering (Bowlby, 1969). However, Ainsworth’s early work in Uganda supports the idea of substitute parents, or individuals who provide routine care and social interaction (Ainsworth, 1979). Other authors (cf., Robertson & Robertson, 1989; Roberson, 2006) have contended that substitute parents or psychological parents could establish an attachment relationship with the children in their care. These authors asserted that, “whoever looks after a young child in the early years, whether she is the blood mother, adoptive mother or foster-mother, becomes the object of the child’s deepest feelings, his psychological parent” (p. 210).
With regard to older children, Robertson and Robertson (1989, as cited in Roberson, 2006) suggested that these youths may be capable of experiencing a deeply satisfying, yet less intense, attachment experience with psychological parents. More specifically the effects of early losses and separations are hypothesized to result in a less intense attachment experience (Roberson, 2006). These authors indicated that adoptive parents can promote secure attachment when they demonstrate behaviors commonly attributed to responsive biological parents (e.g., sensitive responding). In addition to sensitively responding to their child’s needs, adoptive parents must also attend to the child’s reaction to being separated from his or her attachment figure (Remkus, 1991; Roberson, 2006).

Overall, it is evident that adoptive families must attend to the legal, financial, psychological, and cultural impact of adopting a child both domestically and internationally. Research supports the idea that adopted children are capable of forming attachment relationships with their adoptive families, despite initial and ongoing barriers. However, it is essential that families and mental health professionals working with adoptees develop an initial understanding of how attachment relationships are hypothesized to develop and be intergenerationally “transmitted.”

TRANSMISSION OF ATTACHMENT STYLES

With regard to the transmission of attachment, the ideas purported in the prototype hypothesis seem to be made more plausible by the growing body of research suggesting the continuity of attachment styles across generations. For example, via meta-analysis, van Ijzendoorn (1995a) found a correspondence rate of 75% between mothers and infants with regard to secure and insecure attachment styles as measured by the Adult Attachment Interview (AAI; George, Kaplan, & Main, 1985) and the Strange Situation (Ainsworth & Wittig, 1969).
Moreover, when considering the four attachment styles (i.e., secure, avoidant, ambivalent, disorganized), the correspondence rate between parents and infants was 63%. Interestingly, for studies in which parents were assessed before their child’s birth (and the child assessed in infancy), the correspondence rate was 65%.

Other studies have found similarly high rates of correspondence for attachment styles. For example, Madigan et al. (2006) examined mothers classified as unresolved by the AAI and found that 79% of their infants displayed a disorganized attachment style. As such, the data derived from these studies appear to support the hypothesis that parental attachment styles are “transmitted” in some way to their children. van Ijzendoorn (1995a) emphasized that parental attachment representations appeared to predict only part of children’s attachment security and as such, there must be other factors contributing to the transmission of attachment styles across generations.

More specifically, given that the AAI measures adult attachment style based on an individual’s discourse about attachment figures and attachment events, some researchers have questioned why one’s mental representation of past attachment experiences would relate to their infant’s attachment style (Meins, 1999). That is, researchers have repeatedly asked the question, “why is what parents say more important than what they do with respect to attachment relationships?” (Meins, 1999, p. 334). Holmes (1999, p. 120) hypothesized that “the way a parent talks- and presumably therefore thinks- about him or herself links forward with attachment patterns into the next generation, and presumably backwards to their own attachment experiences in childhood.” He emphasized that the AAI was the “forward link.” Interestingly, this measure has been shown to more effectively predict attachment relationships than behaviorally-based indices used to measure maternal sensitivity. These indices have examined whether or how a
mother a) follows her infant’s line of gaze, b) follows her infant’s object-directed activity to redirect their own behavior, c) mimics her infant, and/or d) provides verbal encouragements of her infant’s actions.

Many researches (cf., Holmes, 1999; Ricks, 1985; Sabatier & Lannegrand-Willems, 2005) have posited that the theory of intergenerational transmission of attachment should be considered in the context of three generations (i.e., grandmother, mother, and child). That is, as Connor (2006) stated, “parents who experienced secure attachments in their childhood are more likely to have children who are securely attached to them” (p. 180). For example, Benoit and Parker (1994) examined the transmission of attachment style across infants, mothers, and maternal grandmothers. Specifically, these authors utilized the AAI with mothers during pregnancy and when their infants were 11 months old, as well as with grandmothers (at any point during the study). The SS was used to assess infant attachment when the infants were a year old. Overall, these authors found that the mothers’ AAI classifications during pregnancy predicted infants’ SS classifications with a high degree of success (81% using a 3-category system; 68% using a 4-category system). Mothers’ AAI classifications also predicted grandmothers’ AAI classifications in 75 and 49% of cases (3-category, 4-category, respectively). As such, the authors found partial support for the transmission of attachment across three generations.

Unfortunately, Benoit and Parker’s (1994) study was not without problems. These authors found an astonishingly large number- 54%- of unresolved classifications in the grandmother sample. In attempting to account for this curious finding, the authors hypothesized that the grandmothers may have been more likely to be classified as unresolved given that as a factor of their older age, they have likely experienced more losses of significant attachment figures (e.g., parents, spouses) than their daughters. The authors also indicated that a
classification of unresolved may be prone to interviewer error in the form of failing to probe sufficiently into reported death and trauma.

In a similar study, Hautamaki, Hautamaki, Neuvonen, and Maliniemi-Piispanen (2010) followed a Finnish sample of infants, mothers, and grandmothers until the infants were 3 years old. These authors used the Preschool Assessment of Attachment (PAA; Farnfield, Hautamaki, Norbech, & Sahhar, 2010) to assess the children’s attachment and a modified version of the AAI to assess adult attachment. The correspondence rate between the triads was 47%. Interestingly, grandmothers’ AAI classifications predicted children’s PAA classifications in 72% of cases, whereas mothers’ AAI classifications predicted children’s PAA classifications in 58% of the cases. These authors attempted to explain this discrepancy by hypothesizing that children of parents with an avoidant or preoccupied pattern, respectively, may have to “organize in a reverse way to the parents’ pattern” (Farnfield et al., 2010, p. 352). Unfortunately, the authors did not describe modifications made to the AAI, and only provided inter-rater reliability (95%) with regard to the psychometric qualities of the PAA.

Other authors have found partial support for the idea of a three-generational model of attachment transmission. For example, Kretchmar and Jacobvitz (2002) also examined attachment style across three generations, but instead of emphasizing past relationships with attachment figures (as measured via the AAI), these authors examined current relationships between mothers and their own mothers. The authors administered the SS to infants in order to assess attachment security and chose to utilize the Boundary Assessment Coding System to assess relational patterns between the infants’ mothers and maternal grandmothers. Specifically, Kretchmar and Jacobvitz hypothesized that the transmission of boundary disturbances across generations could impact the attachment system through caregiver behavior. For example, the
authors hypothesized that adults engaging in disengaging (underinvolved) or entangling (overintrusive) behaviors with their infants may be more likely to foster avoidant or preoccupied attachment styles.

Overall, the authors found that the quality of both infant attachment and caregiving behavior were predicted by two factors: a) the quality of the current relationship between the infants’ mothers and maternal grandmothers, as well as the b) mothers’ memories of acceptance by their own mothers during childhood. Interestingly, it appeared as though boundary problems (i.e., disengagement and entanglement) as measured by these authors may assist in “filling” transmission gap; these variables were significantly associated with infant attachment styles. Unfortunately, the reliability of these findings is questionable due to methodological concerns. Specifically, it was unclear whether the Boundary Assessment Coding System utilized by the authors had adequate psychometric properties; this measure was developed for the study in question, and only inter-rater reliability was reported. Nonetheless, additional investigation of current boundary patterns between mothers and maternal grandmothers appears warranted.

In addition to focusing on continuity across generations (e.g., secure-secure-secure), other authors (cf., Shah, Fonagy, & Strathearn, 2010) have focused on what they believe to be predictable patterns within generations for insecure classifications. Like Farnfield et al. (2010), these authors noted that infants learning to relate to insecure mothers often seem to take a “reverse” strategy in order to elicit maximum care; this reverse strategy is referred to as the Dynamic-Maturation Model of attachment and adaptation and is thought to represent an effort of self-protection through learned interactions with attachment figures (DMM; Crittenden, 2006; Farnfield et al., 2010, p. 331). In this model, infants are hypothesized to take in both cognitive and affective information in relating to their caregivers and subsequent use of cognitive-
contingent or affective-arousing information to guide behavior. Additionally, infants are hypothesized to have multiple IWMs based on differing processing pathways that responded to varying environmental contexts.

The DMM model is a relatively new approach to exploring both attachment classification and intergenerational transmission of attachment and, at the time of this writing, has only limited empirical support that has emerged in the past few years (cf., Crittenden, 2010; Farnfield et al., 2010). Overall, this model may be useful in the future to explain the lower correspondence rates across generations with respect to insecure attachment. However, given the lack of current empirical support and attention, although readers should be aware of the recent emergence of this model, the current paper will focus on the AAI and SS classifications and conceptualizations of attachment.

Unfortunately, there is a paucity of research examining the manner in which attachment styles and patterns are transmitted across generations. Although no one cluster of variables has emerged victorious in terms of accounting for one hundred percent of the variance of attachment transmission, three broad categories of variables related to intergenerational transmission have been examined; a) internal (i.e., IWMs), b) relational, and c) ecological.

**Internal Variables**

Of all the variables hypothesized to be related to intergenerational transmission of attachment, perhaps none has received as much empirical exploration as internal variables, specifically internal working models (IWMs). Internal working models of attachment at a particular point in time are thought to be measured by the AAI and the SS, among other measures (Zeanah, Benoit, Barton, Regan, Hirschberg, & Lipsitt, 1993). Importantly, however, IWMs of attachment as revealed by the SS and AAI have been found to be relatively stable over
time, suggesting that either a) IWMs of attachment or b) the parent-child relationship likely
remains stable over time (van Ijzendoorn, 1995b; Waters et al., 2000; Zeanah et al., 1993).
Internal working models are hypothesized to be transmitted through behavioral scripts,
internalized relational patterns, and parent-child interactions.

More specifically, one manner in which attachment security is hypothesized to be
transmitted across generations is through the transmission of IWMs (Roberson, 2006). In fact, as
previously mentioned, Bowlby (1980) suggested that IWMs of attachment were transmitted
across generations, resulting in the transmission of corresponding attachment styles. This pattern
has been noted through studies examining the correspondence between parental AAI
classifications and infant SS classifications.

Scripts (i.e., IWMs) from the primary caregiver tend to be expressed, and thus,
transmitted behaviorally. For example, if a caregiver has a script that children should be “seen
and not heard,” they may be more likely to reinforce certain types of behaviors than others. In
terms of attachment, these parents may reward and emphasize infant independence or obedience
and ignore or punish noisy bids for attention and proximity. The infants of such parents have an
increased likelihood to internalize IWMs characterized by defensive avoidance of attachment
experiences and minimization of the harmful impact of mistreatment in attachment relationships
(Zeanah et al., 1993). Internal working models characterized by avoidance of attachment
experiences and denial are likely to result in behaviors mirroring that of the avoidantly attached
infant.

As another example, parents who have IWMs entailing expectations of children to take
care of their emotional needs may be more likely to engage in role-reversal (Macfie, McElwain,
Houts, & Cox, 2005). Macfie et al. (2005) describe a hypothesized pathway for the development
and transmission of IWMs entailing role reversal. These authors indicated that an infant in this scenario may experience his or her parents as distressed and unresponsive to their needs, yet also discover that these parents are responsive when the infant attempts to soothe the parent. Unfortunately, infants in this scenario learn that in order to get their needs for proximity met, they must be responsive and sensitive to the parent’s needs; these role-reversing interactions occur at the expense of the infant’s own needs for attachment and autonomy (Jenkins, personal communication, 2009; Macfie et al., 2005, Stern, 1985). These infants are likely to internalize IWMs characterized by an overemphasis on attending to attachment experiences, so as to avoid further rejection or intropunitive experiences (e.g., guilt, self-criticism: Main & Goldwyn, n.d.). Internal working models characterized by an overattention to attachment experiences are likely to be expressed behaviorally by infants classified as ambivalent on the SS.

As another example, it is possible that family experiences of violence could contribute to the formation of IWMs emphasizing the self as unlovable and others as dangerous. These IWMs may directly impact the likelihood of an individual acting out aggressively against family members in the future (Alexander & Warner, 2003). They may also influence relational decisions, such as unconsciously choosing partners who will validate their attachment-related IWMs. For example, IWMs may allow an individual to defensively exclude warning signals of abusive behavior; Zeanah et al., (1993) and others (cf., Bowlby, 1980; Pietromonaco & Barrett, 2000) have speculated that IWMs may influence an individual to recreate experiences congruent with his or her relationship history (i.e., repetition compulsion).

Internal working models are also thought to impact how incoming information is perceived and processed, thus impacting attention and memory (Zeanah & Zeanah, 1989). Given their influence on the perception and processing of information, IWMs also likely impact how
affect is experienced and responded to. As infants become older, the onset of language and representational thought further impacts the manner by which IWMs affect behavior. Presumably, a child’s ability to link together “thoughts, feelings, and memories...leads to the integration of (IWMs) into the child’s personality” (Zeanah & Zeanah, p. 182). As such, IWMs are hypothesized to take a more active role in characterizing an individual’s behavior and relational approach- including behaviors and relationships with a parent (and later, with that individual’s own children).

Lastly, it appears as though the transmission of IWMs of attachment is likely to occur through parent-child interactions. Specifically, it is possible that parental state of mind with respect to attachment has an important interaction with parenting behaviors. Infants are hypothesized to develop their IWMs of self and others based on early relational experiences. As such, it is important to examine in more detail what variables within the parent-child relationship are likely to contribute to the formation of these attachment-related IWMs.

**Relational Variables: Theoretical Background**

The impact of the relationship between parents and their infants and its impact on the child’s later functioning has been examined by many authors (cf., Ainsworth, 1979; Alexander & Warner, 2003; Bowlby, 1969). In fact, relational variables (i.e., parenting behavior) are though to play a large role in the transmission of attachment styles; van Ijzendoorn and Bakermans-Kranenburg (1997, p. 139) proposed the following model to describe the intergenerational transmission of attachment:
Figure 1. Intergenerational transmission of attachment.

Parent’s early attachment experiences

Later attachment relationships $\rightarrow$ ↓

Parent’s attachment representation

Social context $\rightarrow$ ↓

Parenting behavior

Child characteristics $\rightarrow$ ↓

Infant’s attachment experiences

As such, it is clear that, amongst other variables, interactions between parents and their infants likely play a crucial role in the transmission of attachment.

Object relations and separation and individuation.

Although many attachment-based authors use components of various theories (e.g., social learning, attachment), they often emphasize key components of object relations (OR) theory. Overall, OR theory places a heavy emphasis on the ability of the primary attachment figure (i.e., mother) to contain the infant’s affect and provide a template that the infant internalizes as part of their ego development (Jenkins, personal communication, 2009; Stern, 1985).

According to OR theory, infants internalize the relationship with the object (usually the primary attachment figure), including both cognitive and affective components, as the basis for the self (Jenkins, personal communication, 2009). This process usually occurs during the first few years of life (van Ijzendoorn, 1995b). More specifically, infants form an ego by taking in the ego of the attachment figure (external object) as an internal object that organizes their functioning. In other words, the ego support of the mother facilitates the ego development and organization of the infant (Winnicott, 2002). Kohut (1977, as cited in Stern, 1985, p. 242)
described this occurrence as the *selfobject*, or, “the process of one person using some aspect of another person as a functional part of the self to provide a stabilizing structure against the fragmenting potential of stimulation and affect.” This process is hypothesized to maintain and enhance self-cohesion as well as provide the basis for affect containment and autonomous functioning (Stern, 1985).

Mothers who are able to successfully guide their infants through the difficult period of separation and individuation are hypothesized to have several relational qualities that allow their infants to move through this crisis and resolve the conflict between needing comfort and security and needing to explore their environment. These “good enough mothers” are aware of and respond consistently to their infant’s needs and signals (Winnicott, 2002). Overall, these mothers are empathically attuned to their infants as well as capable of viewing their infants as separate beings with their own needs.

However, the process of empathic attunement does not occur solely on the part of the mother; it is a reciprocal process in which the infant’s developmental needs and abilities influence his or her mother’s responses. Stern (1985) described affective attunement as entailing imitation or matching of affect in a variety of channels (i.e., vocal, facial, body movements). He stressed that what was matched was not necessarily the infant’s behavior, but an aspect of the infant’s behavior that reflected his or her feeling state at the time. As a result, the emphasis in these interactions is placed not on the overt behavior, but the quality of feeling behind the behavior (Stern, 1985).

Of course, in order to be empathically attuned, a mother must be able to understand that her infant is a separate being. A mother’s ability to view her infant as separate, but related, depends on her ability to first attend to the infant’s needs and signals. This type of empathic
attunement is an essential component of the infant-mother relationship given that when they are first born, infants are incapable of understanding that they are separate beings from their mothers.

Mahler and Furer (1969) described these first 3 months of the infant’s life in terms of the *autistic* stage. During the first few months, the infant is not relational; he or she is responsive primarily to internal stimuli (e.g., hunger, thirst). However, after the first 3 months, the infant begins to show interest in the external environment (*symbiotic*). He or she begins to smile, purposefully direct their gaze, and recognize that an “other” (i.e., mother) is attending to his or her needs and wants (Jenkins, personal communication, 2009; Stern, 1985). These infants begin to discover that “there are other minds out there as well as their own” (Stern, 1985, p. 27). In the last half of the first year, infants undergo tremendous physical growth; they begin to crawl, stand, and otherwise move around (*differentiation* and *practicing* stages). These infants display an interest in their environment while maintaining proximity to mother. In addition, as these infants are hypothesized to be developing the ability to infer the mental states (i.e., intentions, affects) of others, they are more capable of using this skill to guide their overt behaviors (Stern, 1985).

Between the ages of 15-24 months, infants begin to experience a conflict between their need for proximity to mother and exploration of the environment. This stage is referred to as *rapprochement*. Depending on the mother’s response to the infant’s behaviors, the infant either internalizes a) an ability to regulate his or her own functioning and operate safely in the world, or b) a conflict between his or her attachment needs and exploration needs.

**The good enough mother and empathic attunement.**

If the mother is unable to remain consistent, empathically attuned, and aware of the infant’s needs, the result of this conflict between felt security and exploration is the
internalization of diffuse, nonintegrated part objects. In this scenario, the infant is left with the task of making sense of and reacting to the object (i.e., mother), rather than developing his or her sense of being in the world through safe interactions in which his or her needs are placed first. Unfortunately, because the infant must devote his or her energy toward the mother’s needs, the physical and mental energy that otherwise would have been utilized for exploration and development of his or her sense of self is unavailable (Stern, 1985). Specifically, the infant is unable to be in the world; he or she must instead try to please the mother (Winnicott, 2002). As I will describe later, the physical and psychological cost of this type of relationship is substantial.

More specifically, when primary attachment figures are not empathically attuned— that is, when they substitute their own needs and desires for those of the infant—the infant is not able to successfully individuate because the ego boundaries between him or her and the external object are blurred. In addition, the infant also begins to internalize part (e.g., all good, all bad) objects, rather than whole, integrated objects with both good and bad attributes. Consequently, splitting (i.e., the tendency to view the self and others as all good or all bad) emerges as the main defense (Jenkins, personal communication, 2009; Stern, 1985).

Several authors (cf., Jenkins, personal communication, 2009; Stern, 1985) have formed hypotheses around why splitting becomes a prominent defense in the aforementioned scenario. Specifically, these authors noted that infants who receive insensitive or inconsistent caregiving learn that sometimes they can rely on mother, whereas at other times their needs will be unmet. The contradiction between the “all good” mother who provides for the infant’s needs, and the “all bad” mother who rejects, punishes, or fails to respond to the infant’s needs is overwhelming, painful, and confusing (Jenkins, personal communication 2009). Even more threatening to the infant are the catastrophes (e.g., physical harm, death) that could befall him or her if the “bad”
mother were to overwhelm the “good” mother (Jenkins, personal communication, 2009). As a result, the infant is hypothesized to recognize that he or she cannot both separate and feel secure. Consequently, viewing the self and others as all-good or all-bad affords the infant some protection in his or her vulnerable, helpless state.

Moreover, the contradiction between the good mother and bad mother is overwhelming and too painful for the infant to withstand. Were they to be the same person, the bad mother could overpower the good mother at any time, resulting in the destruction of either the self or the love object (Jenkins, personal communication, 2009; Stern, 1985). Consequently, the infant is left to see the world in terms of part objects and struggle to develop his or her sense of self. In addition to splitting and anxiety, a conforming, false self emerges and the infant is left to make sense of the world and react to the love object (mother) in a state of ongoing frustration and anxiety (Hamilton, 1989; Jenkins, personal communication, 2009, Winnicott, 2002).

On the other hand, when a primary attachment figure is empathically attuned, whole, integrated objects are internalized. The infant is able to see others as containing both good and bad aspects, and consequently the infant is able to learn about him or herself as having both good and bad aspects (Stern, 1985). This infant’s primary attachment figure is a good enough mother; she is able to act as a container for her infant’s affective and attachment needs, allowing for the consolidation stage to begin in which the infant begins to make successful demands for autonomy.

Overall, the child of a good enough mother is capable of separating and individuating from his or her primary attachment figures. Most importantly, he or she is able to develop a secure sense of self that is based on an interrelatedness, but not at the expense of his or her own experience (Stern, 1985). Importantly, the interactions between the infant and his or her
caregiver during this time sets the stage for adult relational behaviors; as Klee (2000) wrote, “It is as if in early childhood we create a script for a drama and then spend the rest of our lives seeking out others to play the parts” (para. 5).

Other authors (cf., Ainsworth, 1979; Bowlby, 1973; Connor, 2006) have emphasized the impact of early relationship experiences on adult behaviors. Specifically, early attachment experiences between a parent and infant are hypothesized to form the basis for coping skills, relational behaviors, and personality development (Porter, 2003; Connor, 2006). More specifically, these relational experiences set the stage not only for ego development and secure attachment, but also for key skills such as affect regulation and the development of positive self-concept.

Relational Variables and the Transmission Gap

Overall, given the extreme importance of the early relationship between parents and their infants, it is evident that a more thorough examination of variables that comprise the parent-child relationship (i.e., “relational variables”) be examined in terms of their contribution to attachment styles. Although none has found that relational variables “fill” the transmission gap, many research teams have investigated relational variables thought to be related to intergenerational transmission of attachment. For example, some authors (cf., van IJzendoorn, 1995a) have hypothesized that parental sensitivity plays a mediating role in this process, whereas others (cf., Alexander, 1992; Fonagy & Target, 2005; Hodges, Steele, Hillman, Henderson, & Neil, 2000; Madigan et al., 2006; Reese, 2008; Roberson, 2006; Slade, Grienenger, Bernbach, Levy, & Locker, 2005; Styron & Janoff-Bulman, 1997) have emphasized factors such as maternal coherence (i.e., ability to clearly and flexibly attend to and speak about one’s feelings with respect to attachment), mentalizing (i.e., theory of mind, or understanding that other individuals,
including one’s own children, have their own minds, thoughts, feelings, desires, etc.), and frightening parental behavior or child abuse. van Ijzendoorn (1995b) has also investigated factors such as temperament and found the connections between attachment styles and temperament to be insignificant. Relational variables such as maternal coherence, mentalizing, and factors contributing to disorganized attachment will be reviewed in the next few sections.

**Maternal coherence.**

With respect to the attachment relationship, maternal coherence entails the ability to speak about attachment experiences in a truthful, succinct, relevant, and orderly manner (van Ijzendoorn, 1995a). This variable is typically measured through the AAI and entails four principles: quality, quantity, relation, and manner. Grice (1975) described these variables in detail. *Quality* refers to the participants’ ability to share truthful information that is backed up by evidence. This principle is considered to have been violated when participants are vague or display factual or logical contradictions in their dialogue. *Quantity* refers to the participants’ ability to be concise yet share enough detail to get their point across. This principle is considered to have been violated when participants fail to give sufficient information, or information that is in excess to that which is necessary. *Relation* refers to the participants’ ability to share relevant information to the content of discussion. In other words, participants who go off track or fail to relate historical (rather than current) information are considered to have violated the principle of relation. Finally, *manner* refers to the participants’ ability to be clear and orderly in their discourse. Participants who use jargon, odd phrases, or tense changes are considered to have violated the principle of manner.

An examination of maternal coherence in the context of attachment is valuable because this variable is hypothesized to relate to attachment security as well as children’s positive self-
concept. Specifically, mothers whose AAI discourse is more coherent are more likely to have children who are classified as securely attached on the SS (van Ijzendoorn, 1995a). Similarly, these mothers are also more likely to be rated as autonomous on the AAI. Maternal coherence is thought to indirectly impact children’s self-concept through the mediator of attachment style. Specifically, mothers who are more coherent are more likely to be judged as securely attached (autonomous) and are more likely to have children whose self-concept is generally positive (Reese, 2008).

It may be that mothers who are more coherent in their dialogue foster a secure attachment with their children, as their verbalizations to their children are more likely to be elaborative, rather than reminiscing. An elaborative style (e.g., “What animals did we see at the zoo?”/ “Yeah, that’s right, we saw a monkey!”) involves an open ended question containing new information about a past event (Reese, 2008, p. 452). This style also involves less repetition and invites a conversational response from the child, which is usually confirmed. In contrast, a repetitive style (e.g., “How did we get to Florida?”/ “On a plane,”/ “No, we didn’t go on a plane; how did we get there?”) involves a specific focus on one aspect of a previous event as well as repetitive questioning about the event without giving the child new information (Reese, 2008, p. 452). A coherent, elaborative style is thought to relate to attachment security given that it invites a conversational, rather than factual, interaction between mother and child. This style also contributes to the development of richer IWMs and supports autobiographical memory development. Finally, this style allows a child to incorporate his or her mother’s ability to flexibly and coherently attend to relevant details.

In an interesting investigation of maternal coherence and attachment, Hayden, Singer, and Chrisler (2006) examined the impact of the details, repetition, and positivity/negativity of the
child’s birth story on the mother-daughter attachment. These authors hypothesized that because both mothers and daughters are able to give birth, the sharing of the birth story provides mothers an opportunity to share feelings of love, awe, and bonding with their children. Specifically, these authors noted that the affective tone and level of description a mother uses in sharing the birth story with her daughter allows the daughter the opportunity to internalize the story of her own birth and make it her own. Furthermore, the authors noted that the sharing of how one came into the world as well as the act of birthing is an intimate act between mother and child and a powerful attachment experience (Reese, 2008). Participants in this study completed the Rosenberg Self-Esteem Scale (Rosenberg, 1965) and the Adult Attachment Scale (Cicirelli, 1995), both of which were reported to have adequate internal reliability. Interestingly, although the positivity of the birth story was significantly correlated with the daughters’ level of self-esteem, it was not related to attachment security. However, repetition and descriptiveness of the stories were related to attachment security; daughters who had heard their birth stories more often, and with more detail, were more likely to demonstrate stronger attachments to their mothers. Overall, although the exact contribution of maternal coherence to the intergenerational transmission of attachment is not known, it is clear that maternal coherence plays a supporting role in the development of a secure attachment style.

**Sensitivity.**

Perhaps no relational variable has received more attention in the literature than that of parental responsiveness/sensitivity. In her groundbreaking study of infant attachment and the Strange Situation, Ainsworth (1969) noted that mothers who sensitively responded to their children had infants who were more likely to openly express their anger, fear, and need for their mother during the separation procedure.
Adult attachment security and caregiving behaviors are thought to be interlinked, with attachment security providing the basis for sensitive caregiving (Ainsworth, Bell, & Stayton, 1974; Peck, 2003). Sensitive caregiving is, of course, directly related to infant attachment security through the development of IWMs of attachment and attachment-related interactions with the caregiver. Ainsworth and colleagues (1974) described several dimensions of maternal behavior thought to be related to infant attachment security; one of these scales (sensitivity-insensitivity) deals directly with the degree to which a mother is able to accurately detect and respond to her infant’s signals. More specifically, these authors developed the Maternal Sensitivity Scale (Ainsworth et al., 1974), which utilizes a 9-point scale with five anchor points (e.g., highly insensitive, insensitive, inconsistently sensitive, sensitive, highly sensitive).

Overall, Ainsworth and colleagues conceptualized sensitivity as entailing four components: a) awareness of, b) appropriate interpretation of, c) appropriate response to, and d) prompt response to the infant’s signals. More specifically, in order to be aware of the infant’s signals, the mother must be both accessible and have a reasonable “threshold” of detection (p. 128). That is, the mother must not only be close by, but also able to detect both obvious and subtle communications from the infant. Interestingly, these maternal qualities correspond nicely with what Stern (1985) deemed the essential capacities necessary for a sense of a core self. These capacities include a) sharing a focus of attention, b) attributing motives and intentions to others (and comprehending them correctly), and c) recognizing that others have feeling states which may or may not be congruent with one’s own feeling states (Stern, 1985). As such, it may be that mothers who interact sensitively with their infants foster the development of a secure sense of self, which later contributes positively to a secure attachment relationship.
Furthermore, Ainsworth and colleagues (1974) emphasized that a mother’s ability to appropriately interpret her infant’s signals entails three components: a) adequate awareness, b) freedom from distortion (e.g., accurate perception not overly colored by defensive operations such as denial and projection), and c) empathy. For example, mothers who are able to appropriately interpret their infants’ signals are not only able to accurately perceive the signals, but also take into account how their behavior and moods impact their infant.

Upon further inspection of Ainsworth and colleagues’ (1974) sensitivity-insensitivity domain, it is clear that mothers have their work cut out for them, for if they are accessible and accurately interpret the infant’s signals, they have achieved only half of the requirements. In addition to being available and interpreting signals correctly, mothers must also appropriately respond- and promptly so. More specifically, in the first year of life, a mother must be able to put her infant’s needs ahead of their own; she must also be able to adjust her interactions with the response her infant is giving them. For example, she must be able to feed the infant if he or she is hungry, rather than attempting to play or engage in another activity of their preference. Of course, over time, a mother must also adjust her behaviors to the developmental needs of her infant; that is, she can begin to engage in limit-setting and respond differentially to appropriate behaviors. As Ainsworth and colleagues emphasized, a sensitive mother is able to maintain awareness of her infant’s proximity and attachment needs with an eye on the infant’s socialization and development.

Overall, Ainsworth and colleagues (1974) found that mothers who were rated high on sensitivity were also typically rated high in acceptance, cooperation, and accessibility, whereas mothers rated low in one of the three variables were typically rated low in sensitivity. That is, these mothers were more likely to put their own needs above those of their infant’s, resulting in
less secure attachment relationships. Interestingly, Ainsworth and colleagues also noted that mothers who placed a higher priority on “training” their infants to meet desired goals, such as crying less and responding to maternal signals and commands (e.g., “Give it to me!”) rather than on sensitively responding to the infant’s signals tended to have infants who explored less, cried more, and responded more slowly to commands.

In addition, maternal sensitivity as it relates to attachment can also be understood from a behavioral point of view. For example, mothers who are inconsistently sensitive to their infant’s signals are more likely to have infants who maintain or increase the intensity and frequency of their attachment behaviors. Unfortunately, because the mothers of these infants respond inconsistently, the attachment systems of these infants are left perpetually activated, resulting in less mental energy available to actively explore the environment. On the other hand, mothers who either consciously or unconsciously punish (e.g., reject, ignore) their infant’s attachment behaviors are more likely to have infants who show a decrease in attachment behaviors. Consequently, these infants learn to withdraw from or avoid situations in which they could otherwise receive proximity, comfort, and support from a caregiver.

Of course, Ainsworth and colleagues (1974) are not the only authors who have examined sensitivity in the context of attachment. Importantly, some authors (cf., Meins, 1999) have criticized Ainsworth et al.’s maternal sensitivity scale for a) not being sufficiently descriptive in terms of specific behaviors that indicate the varying degrees of maternal sensitivity as well as b) not placing specifications around the length of observation or the context in which this measure should be used. These authors have posited that because Ainsworth and colleagues were not sufficiently descriptive in defining specific sensitive behaviors, whether mothers are appropriately sensitive is often left up to examiner interpretation. Meins (1999) and others (e.g.,
Peck, 2003) were also quick to point out that sensitive caregiving does not predict attachment status as well as Ainsworth and colleagues originally suggested. van Ijzendoorn (1995a) found added support for this criticism; he specified that sensitivity accounted for approximately 23% of the association between adult state of mind (e.g., AAI classification) and infant attachment. Other authors (cf., Pederson, Gleason, Moran, & Bento, 1998) have cited similar findings (i.e., 17%). Despite this finding, many authors have continued to examine maternal sensitivity and its contribution to infant attachment.

For example, in an interesting effort to link maternal sensitivity and infant attachment, Peck (2003) reviewed specific subtle interactive behaviors such as coordination of gaze, posture, and vocal and facial expression. She conceptualized attachment from the lens of emotion regulation and stated, “emotion regulation....has evolved to promote the attainment of organismic goals, in this case, attachment” (p. 42). Peck emphasized that in order to attain goals, individuals must modulate emotional arousal as well as the intensity at which emotions are permitted to be experienced. In other words, securely attached adults are likely to both express and process a range of emotions, whereas adults who display a dismissing or preoccupied style are more likely to dampen or heighten emotional experiences, respectively. In terms of sensitivity, adults who are able to flexibly attend to and process emotions are more able to focus on the needs of others and respond “in other-oriented ways (i.e., sensitively)” (p. 43). In contrast, adults (e.g., parents) who are distressed by emotional experiences are more likely to respond less sensitively, as they must first process and modulate their own distress, resulting in a lack of focus on the infant’s needs.

In terms of specific behavioral responses, aversive stimuli such as an infant crying may be ignored by some parents in an effort to defend against reminders of past rejections by others
(more specifically, their mothers). Specifically, these parents are hypothesized to engage in over-
or under-exaggerated facial mimicry, as they may physically turn away from their infants (dismissing) or with their body or face show their own distress (preoccupied). In other words, “such persons emotionally cannot afford to allow their face to show a concerned expression, as this concerned expression would engender a physiological response that would overwhelm their emotion regulatory system” (Peck, 2003, p. 46).

Overall, it appears as though sensitivity is related to attachment in that maternal sensitive behaviors provide the “flavor” of the interaction between the mother and the infant, thus contributing to the infant’s expectations of “what normally happens” (IWMs). Peck (2003) emphasized that infants can and do recognize and respond to even subtle maternal behaviors; she reviewed several studies (cf., Cohn & Elmore, 1988; Trolnick, Als, Adamson, Wise, & Brazelton, 1978) in which mothers were instructed to put on a “still-face” (i.e., to be unresponsive and expressionless) contingent upon their infant’s positive facial expression. Infants whose mothers used the “still-face” were less likely to greet their mothers and were more likely to demonstrate a negative facial expression or turn away from their mothers during a play-even when the “still-face” lasted 5 seconds or less. As such, it is evident that sensitive caregiving is a reciprocal process, influenced by both maternal emotion regulation (attachment) and infant response. In terms of the transmission gap, however, given that maternal sensitive behaviors are not yet sufficiently defined, it is difficult to measure their contribution to intergenerational transmission of attachment styles.

**Mentalizing and reflective function.** Unfortunately, despite numerous research studies assessing its role in intergenerational transmission of attachment, parental sensitivity has consistently failed to emerge as a major mediator. As a result, many authors have attempted to
look at what variables appear to mediate maternal sensitivity. One such variable, mentalizing, has been examined by several authors. Mentalizing refers to the ability to understand that others have minds and are motivated by thoughts, feelings, wishes, beliefs, and desires, and is hypothesized to be related to the ability to regulate affect (Fonagy & Target, 2005). Similarly, a mother’s ability to view her infant as separate but related has also been described in terms of “reflective function” and “mind-mindedness.”

**Mentalizing as a prerequisite for sensitivity.** Some authors (cf. Bernier & Dozier, 2003) have hypothesized that mentalizing may help reduce the transmission gap by accounting for the degree to which mothers are able to sensitively respond to their child’s cues. These authors stressed that an understanding of the child’s mental state (i.e., the ability to mentalize) is necessary for a mother to be able to accurately perceive and interpret her child’s cues.

More specifically, some authors (cf., Bernier & Dozier, 2003; Fonagy & Target, 2005) view mentalizing as a “prerequisite” for maternal sensitivity, thus contributing to attachment security. Meins (1999) hypothesized that mentalizing permits mothers to view their infants as individuals with their own needs, rather than “entities with needs that must be met” (p. 332). Mothers who are more able to view their infants as individuals in their own right are hypothesized to be more able to distinguish the infants’ needs from their own, and as a result, place the infant’s needs first. These mothers are able to look objectively and see things from their infants’ point of view, rather than view the infant as merely an extension of themselves. In other words, these mothers have an awareness of the developmental level of their infants and do not project their own mental processes onto the child, thus interfering with both their infants’ development as well as attachment. As Ainsworth (1969) noted, “the highly interfering mother...
has no respect for her baby as a separate, active and autonomous person…(her) baby continues to be a narcissistic extension of herself” (p. 5).

In an interesting examination of this type of narcissistic mindset, Macfie et al., (2005) described the phenomenon of role reversal. They defined role reversal as “the extent to which the parent demands involvement and attention from the child which entails involving the child in their physical or psychological care. The child may be in the role of parent, spouse, or peer to the parent” (p. 56). These authors highlighted that parents who ignored the developmental needs of their children in the service of getting their own needs met failed to take into account the inappropriate nature of the implicit and explicit demands on their children. They added that although role reversal may help a parent get his or her own childhood needs met, it is likely to compromise the child’s development. Not surprisingly, role reversal was more strongly associated with a preoccupied AAI classification than an autonomous AAI classification. If transmission of attachment occurs, it appears that role reversal may increase the risk of ambivalent infant attachment, perhaps due to inadequate or absent parental mentalizing with respect to the child’s developmental capabilities.

With respect to developmental capabilities, affect regulation is both an important consequence and prerequisite for mentalizing. The ability to appropriately and effectively manage one’s affect is first learned through early interactions between infants and their primary attachment figure (Haft & Slade, 1989). More specifically, the affective exchange between a primary attachment figure (i.e., a mother) and her infant is the first opportunity an infant has to learn about social interaction as well as about his or her own feelings (Haft & Slade, 1989; Stern, 1985). The way a mother matches her infant’s affective state sets the stage for the infant’s improved ability to acknowledge his or own affect. This matching- or attunement— not only
allows the infant to learn about him or herself, but also to operate as a separate being in relation to an external other (Stern, 1985). As such, the infant learns that he or she can interact with another person and experience a change in affect— but not a change in self. Overall, in affective attunement, both parent and child learn that they impact the other, but also that they are separate from each other.

Importantly, in order for a mother to be affectively attuned (i.e., sensitive), she must acknowledge that she and her infant are separate, but related. Through interactions with her infant, a mother teaches her infant that his or her emotions—positive or painful—will not overwhelm or destroy either of them. For example, painful affect on the part of either the parent or the child can be managed more effectively because the parent is able to view and respond to this affect as a mental state rather than an unchanging reality (Fonagy & Target, 1998).

**Mentalizing in research.** Mentalizing has been examined through two broad contexts: a) analysis of maternal verbalizations, and b) analysis of maternal behaviors. Specifically, many authors (cf., Bernier & Dozier, 2003; Meins, 1999; Slade, Grienenberger, Bernbach, Levy, & Locker, 2005) have focused on how what mothers say about their babies may reflect their ability to see the child as a unique, separate individual. These authors have typically utilized semistructured interviews and analyzed the verbal content of these interviews to measure mentalizing ability. Other authors (cf., Grienenberger et al., 2005) have utilized behaviorally-based measures such as the Atypical Maternal Behavior Instrument for Assessment and Classification (AMBIANCE, version 2; Bronfman, Parsons, & Lyon-Ruth, 1999) to examine specific maternal behaviors that may demonstrate mentalizing ability.

Importantly, Bernier and Dozier (2003) stressed that mentalizing must take place in the context of the child’s developmental stage. That is, mothers must be aware that infants are
unlikely to have sophisticated mental processes determining their behavior much before the age of 18 months. Around this time period, infants typically begin to show signs of increased mental activity in the form of symbolic play, increased vocabulary, and an ability to combine words into meaningful phrases. As a result, it is appropriate for mothers to be attuned to the child’s likely mental attributes once the child shows evidence of these attributes through the behavioral manifestations previously mentioned. For example, it would be developmentally inappropriate and insensitive for a mother of a 3-month-old infant to explain the infant’s crying as a way of “bothering me, because she knows I hate that” - this is a misinterpretation of the child’s cues and would likely lead to an insensitive response.

In general, it appears that in order to contribute positively to maternal sensitivity (and thus, attachment security), the level of mentalizing must be appropriate for the child’s developmental presentation. In fact, Bernier and Dozier (2003) found evidence in support of such a hypothesis; these authors assessed the attachment security of 64 infant-foster mother dyads through the AAI, SS, and the This is My Baby Interview (TIMB; Bates, 1998). The TIMB is a semistructured interview given to foster mothers who have cared for at least one foster child continuously for at least 2 months. This interview entails questions relating to the mother-child relationship with a specific focus on whether the mother a) thinks of the child as her own or b) thinks of the child as a visitor or a source of income (Bernier & Dozier, 2003). The authors noted that typically, the coding system consisted of three scales (i.e., Acceptance, Commitment, Awareness of Influence), although these scales were not used in the study. Specifically, the authors reported that they only used the first question of the TIMB: “Could you describe (child’s name) for me, what he (or she) is like?” in order to assess maternal mind-mindedness (i.e., mentalizing; p. 359).
Overall, the authors found that foster mothers who were able to describe their children in an age-appropriate way were more likely to have infants who were securely attached. More specifically, foster mothers who were able to refrain from focusing on the child’s mental attributes before behavioral evidence of such advanced mental activity were more likely to act in a more sensitive manner, thus impacting the security of the attachment relationship. Although it is promising (and relevant to the topic of this paper) that Bernier and Dozier (2003) utilized a sample of foster mothers, the measure used to assess maternal mind-mindedness (the TIMB) appears to have limited data attesting to its psychometric properties. For example, as of 2002, predictive validity of all but one scale was still under review (Bates & Dozier, 2002). Specifically, the predictive validity of the Commitment scale in terms of the stability of the parent-child relationship was supported by findings from Dozier and Lindheim (2006).

Unfortunately, the only reliability data provided in the current study was interrater agreement ($r = .85$) between the first author (i.e., Bernier) and an independent second coder.

Meins (1999) also focused on maternal statements as reflective of their ability to mentalize. She noted that mothers with strong abilities in this domain were more likely to make “mind-related comments” to their infants. That is, these mothers made specific references to their infant’s mental or emotional states and processes such as “You know what that is, it’s a ball,” “Are you thinking?” and “You’re just teasing me” (Meins, 1999, p. 333). Interestingly, Meins found that mothers who made more mind-related comments to their infants were more likely to have infants who were securely attached.

Other authors (cf., Slade et al., 2005) have hypothesized that, like sensitivity, mentalizing acts as a mediator between infant and parent attachment (e.g., intergenerational transmission). Slade and colleagues (2005) viewed mentalizing in terms of maternal reflective functioning (RF)
or, “the capacity…to hold (the) baby and his mental states in mind” (p. 284). These authors administered the AAI and the Parent Development Interview (PDI; Aber, Slade, Berger, Bresgi, & Kaplan, 1985) to 61 new mothers; the SS was administered when infants were 14 months old. The PDI is a semistructured interview “designed to assess a mother’s representations of her child, herself as a parent, and her relationship with the child” (Slade et al., 2005, p. 288).

Reflective functioning was assessed using the Addendum to the Reflective Functioning Manual (Slade, Bernbach, Grienenberger, Levy, & Locker, 2004) on the PDI transcripts. Unfortunately, psychometric properties for the PDI and Addendum to the Reflective Functioning Manual were not reported, and do not appear to have been investigated by other authors.

Overall, the authors found that maternal RF was positively associated with both infant and adult attachment security. The authors concluded that maternal RF likely acts as a mediator between adult and infant attachment. In their review of the Slade et al. (2005) findings, Fonagy and Target (2005) stressed that maternal RF may serve as a protective factor with respect to attachment security. In general, it may be that mothers who are able to hypothesize about and interpret their infant’s mental states are more likely to think carefully about their response to their infants (Slade et al., 2005). This increased insight may lead to behavioral changes and as a result, changes in the attachment relationship. Unfortunately, without additional research examining this finding as well as information as to the psychometric properties of the assessment measures, it is impossible to determine whether maternal RF may mediate the relationship between adult and infant attachment.

Other authors (e.g., Grienenberger et al., 2005; Madigan et al., 2006) have focused on how maternal reflective functioning could be observed behaviorally, rather than focusing on the way that mothers describe the internal states of their infants. These authors have emphasized that
parental behaviors—especially frightening behaviors—can directly impact the attachment relationship (i.e., increase the likelihood of the development of a disorganized attachment style). Specifically, a parent (i.e., mother) who is the source of the infant’s fear as well as a potential source of protection and support places their infant in quite a predicament. Infants in this scenario are faced with what Main and Hesse (1990; Madigan et al., 2006, p. 90) call an insoluble dilemma; their attachment needs are continually unmet and they are left perpetually aroused, resulting in a state of fright without solution. That is, these infants lack an organized (e.g., secure or insecure) method of responding to distress and as such, engage in what appear to be odd, conflicted, or inexplicable behaviors (e.g., freezing, attempting but failing to approach the parent) (Madigan et al., 2006). Not surprisingly, these infants are typically classified as “disorganized” on the SS.

Mentalizing and disorganized attachment. Grienenberger and colleagues (2005) examined specific maternal behaviors and their relation to increased disorganized infant attachment. These authors utilized the PDI, SS, and the AMBIANCE (version 2; Bronfman, Parsons, & Lyon-Ruth, 1999). The AMBIANCE was designed to assess both “frightened/frightening” behaviors as well as parental ability to respond predictably and sensitively to infant distress. This measure has been shown to possess adequate inter-rater reliability as well as predictive validity with respect to both maternal reflective functioning (mentalizing) and infant attachment (Grienenberger et al., 2005). Behaviors such as antagonism, withdrawal, and deemphasizing or overriding the infant’s cues are examined in the context of five dimensions: a) affective communication errors, b) role or boundary confusion, c) fearful, disoriented, dissociated, or disorganized behavior, d) intrusiveness or negativity, and e) withdrawals. Importantly, these behaviors are assessed during a video review of the SS.
Lyons-Ruth et al. (1999) described in more details the kinds of behaviors that would be coded during the AMBIANCE. In general, “affective communication errors” occur when the parent offers contradictory cues or an inappropriate response to the infant. More specifically, behaviors coded as “affective communication errors” may include laughing while the infant is crying or not offering comfort after the infant falls. Behaviors coded as “role or boundary confusion” may entail role reversal or sexualization, such as demanding a show of affection from the infant. Next, “dissociated or disoriented” behaviors may include sudden voice changes, a confused or frightened facial expression aimed toward the infant, or a sudden loss of affect (Grienenberger et al., 2005; Lyons-Ruth, Bronfman, & Parsons, 1999). “Intrusive or negative” behaviors include not only physical behaviors such as pulling the infant by the wrist, but also negative verbalizations (e.g., mocking or criticizing the infant). Finally, behaviors coded as “withdrawal” include creating physical distance (e.g., redirecting to toys instead of the self as a source of comfort, holding the infant away with stiff arms) as well as verbal distance (e.g., failing to greet the infant after a separation).

Grienenberger and colleagues (2005) noted that, as predicted, mothers with higher RF scores had lower AMBIANCE scores. That is, as measured by the AMBIANCE, mothers with increased reflective functioning were less likely to engage in insensitive and inappropriate behaviors. Not surprisingly, mothers with higher AMBIANCE scores were more likely to have infants who were insecurely attached—particularly infants who were classified as ambivalent or disorganized. The authors concluded that maternal behavior and maternal reflective functioning are closely related; that is, maternal behavior is the primary means by which a mother’s RF is demonstrated in her relationship with her child.
Overall, it appears as though sensitivity by itself likely does not completely “fill” the transmission gap. However, many authors have speculated that maternal sensitivity plays a mediating role in the transmission of attachment style through its effect on maternal behaviors. However, sensitivity in itself is thought to be mediated by maternal mentalizing/reflective functioning/mind-mindedness. In this context, disorganization of attachment, or a rupture in the transmission of a secure attachment style from parent to child may be seen as a consequence of a lack of mentalizing and, consequently, a lack of sensitive parenting behavior (Fonagy & Target, 2005).

**Barriers to sensitivity and mentalizing.** If mentalizing appears to be a key variable in a mother’s ability to sensitively respond to her infant, what types of variables may impair a mother’s ability to mentalize, and, consequently, behave in a sensitive manner? Several authors (cf., Fonagy, 1991) have examined the effects of trauma and related behaviors (e.g., dissociation) on attachment. Other authors (cf., Main & Hesse, 1992; Mazzarello, 2007; Zeanah & Zeanah, 1989) have examined various such as child abuse, frightening/frightened behaviors, and callous-unemotional traits.

First, Fonagy (1991; Fonagy & Target, 2005) proposed that a history of interpersonal trauma may inhibit mentalizing. He hypothesized that mothers with high levels of mentalizing (i.e., reflective functioning) had a greater capacity to regulate the infant’s fear due to interacting with the infant in a nontreating, nonfrightening manner. As described earlier, Lyons-Ruth et al. (1999) described five categories of behavior (i.e., affective communication errors, role/boundary confusion, dissociated/disoriented behaviors, intrusive/negative behaviors, withdrawal) hypothesized to result in an increase in attachment disorganization.
Several other authors (cf., Main & Hesse, 1992 have attempted to classify specific behaviors likely to result in an increase in attachment disorganization. It is important to distinguish between mildly negative and brief behaviors (e.g., mocking the infant once) and extremely negative and persistent behaviors (e.g., neglect), some of which may be measured by the AMBIANCE, and others which only may be observable over long periods of time.

Notably, many of these behaviors may occur intentionally (i.e., consciously), whereas others may occur without conscious awareness. First, Main and Hesse (1992; Madigan et al., 2006, p. 92) described threatening (e.g., looming), frightened (e.g., backing away from the infant while stammering in an unusual and frightened voice “D-don’t follow me, d-don’t”), dissociated (e.g., using a “haunted” voice while interacting with the infant), sexual (e.g., sexualized caressing) deferential/timid (e.g., interacting with the infant as though the infant was in control and powerful), and disorganized (e.g., mistimed/asymmetrical movements) behavior.

Another example of insensitive parental behavior is that of child abuse. Zeanah and Zeanah (1989) hypothesized that, like attachment, child abuse may be in part transmitted intergenerationally. These authors reviewed findings in the literature that abusive parents report high rates of having been abused themselves. These authors estimated that the rate of intergenerational transmission of abuse, in general, to be 30% or higher. Similar to insensitive mothers who do not abuse their children, these authors commented that abusive parents are less likely to display sensitive caregiving behaviors. Specifically, they noted that these parents were less empathically attuned to their children; they were more likely to identify positive signals as negative or attribute a malevolent intention to their children’s behaviors.

Some authors (cf., Main & Hesse, 1992; Madigan et al., 2006) hypothesized that these parents may unintentionally transmit their experiences of unresolved trauma to their children.
Specifically, they noted that parental expressions of fear (e.g., dissociation, threatening behaviors, etc.) may take place in front of or in response to the infant. Consequently, the infant receives the conflicting message of: the person who is supposed to be taking care of me is unavailable. Such a message is hypothesized to elicit fear and confusion that is displayed behaviorally.

Indeed, as previously mentioned, several authors (e.g., Grienenberger et al., 2005) have noted the link between frightening parental behavior and disorganized attachment. For example, even after accounting for maternal RF, these authors found that AMBIANCE scores continued to be significantly correlated with infant attachment (Grienenberger et al., 2005). Mothers scoring high on this measure were more likely to engage in the threatening, frightened, dissociated, sexual, deferential/timid, or disorganized behaviors described previously. In other words, these mothers are likely to model behavioral and attentional disorganization during times of distress. Not surprisingly, their infants are more likely to demonstrate a disorganized attachment style; they not only fail to make use of the caregiver to resolve their distress, but also their behaviors are reflective of the fear, apprehension, and confusion they feel toward this individual given “the frightening realization that, when in need of protection, the caregiver is unlikely to provide a haven of safety…” (Madigan et al., 2006, p. 92).

Not surprisingly, in addition to an increase in disorganized infant attachment, mothers who engage in a high number of frightening/frightened behaviors are more likely to be classified as unresolved on the AAI (van Ijzendoorn, 1995a; Main & Hesse, 1990; Madigan et al., 2006). In contrast, mothers/infants with organized styles are more likely to maintain behavioral and attentional organization as they resolve their distress during the SS procedure (Madigan et al.,
2006). That is, even when rated as insecure, their behaviors are somewhat predictable and organized.

Unfortunately, whether frightened/frightening parental behavior is a result of unresolved trauma or a result of extreme insensitivity, the effect is the same- an increase in the likelihood of an insecure or disorganized attachment style. Infants learn that in order to increase their chances of survival, they must elicit maximum nurturance by adapting to the behaviors of their caregivers (Howe et al., 2000). As a result, infants learn to either defend against (avoid) negative attachment experiences, elicit or otherwise try to control these experiences, or develop mixed strategies to cope with their vulnerability and helplessness. The developmental cost of these strategies is immense; not only do these infants develop negative representations of themselves and others- but also they lose valuable opportunities to explore their environment and learn to effectively express and manage their distress.

Finally, one other maternal relational variable- callous-unemotional traits- has been examined with regard to its relationship to attachment insecurity. Callous-unemotional traits have been defined in the literature as a general lack of empathy or remorse for others, and are associated with antisocial behaviors. Importantly, maternal antisocial history has been hypothesized to be positively associated with maternal unresponsiveness as well as maternal coercive behavior (Cassidy, Zoccoliolo, & Hughes, 1996; Johnson, Cohen, Kasen, Smailes, & Brook, 2001; Mazzarello, 2007). The aforementioned variables are also thought to be associated with attachment disorganization through their impact on the mother-infant relationship. In an interesting investigation of antisocial maternal traits, Mazzarello (2007) examined results from the Callous-Unemotional (CU) scale of the Antisocial Process Screening Device (APSD; Frick & Hare, 2000) with a sample of adolescent mothers.
The APSD is a 20-item self-report measure designed to assess psychopathy in juvenile offenders. Briefly, in the literature on adults, psychopathy is generally defined as a syndrome involving a) behavioral deviancy marked by b) distinctive affective and interpersonal features such as a callous lack of empathy, failure to accept responsibility, impulsivity, and manipulation of others (Patrick, Fowles, & Krueger, 2009). Some authors have emphasized that a psychopath’s lack of empathy is a fundamental factor in psychopathy (Hare & Neumann, 2008).

The APSD has been shown to possess a three-factor structure; Impulsivity/Conduct problems, Callous/Unemotional Traits, and Narcissism factors. The APSD has been shown to correlate moderately with the Psychopathy Checklist Revised (PCL-R; Hare, 2003), a measure of adult psychopathy. The ASPD has also been shown to possess adequate predictive validity in predicting recidivism, although many of the studies done demonstrating this measure’s validity have been performed by a small group of authors (i.e., those who designed the measure). Briefly, callous-unemotional traits, or a lack of empathy and remorse for others, are considered to be one of the key elements at play in youths as well as adults with psychopathic traits.

Mazzarello (2007) hypothesized that maternal callous-unemotional traits would mediate the transmission of attachment between adolescent mothers and their children. Interestingly, this author found support for her hypotheses. Indeed, mothers with significantly higher levels of callous-unemotional traits tended to have children who were insecurely attached. Specifically, when examined in a regression equation, maternal callous-unemotional traits contributed significantly (i.e., 19%) to child attachment security/insecurity, $F(1, 38)= 8.83$, $p < .01$. The author concluded that maternal callous-unemotional traits could be viewed as a mediating variable for the prediction of child attachment security/insecurity. She hypothesized that callous-unemotional traits acted as a mediating variable with respect to child attachment through their
impact on mother-child interactions, as well as maternal attachment. This author suggested that mothers with an insecure attachment style as well as callous-unemotional traits may have negative expectations about their relationship with their child, resulting in misinterpretations of their child’s signals and subsequent insensitive and coercive behaviors (e.g., negative-intrusive behaviors, lack of warmth), both of which are related to attachment insecurity in children.

**Ecological Variables**

Of course, relational and internal variables impacting the transmission of attachment must be considered in the environmental context in which they occur. That is, internal working models and sensitive parental behavior do not operate in isolation; they are impacted by a number of ecological variables, such as early stressors, environmental setting, parent gender, and culture.

**Early stressors.**

The impact of early stressors (e.g., social isolation, high stress levels, coercive marital relationship) in the family environment is hypothesized to mediate the attachment relationship between parents and their children through a direct impact on parent-child interactions (Belsky, Youngblade, Rovine, & Volling, 1991). Specifically, parents who experience higher levels of stress have been found to be less affectionate, less available, and more irritable with their children (Belsky et al., 1991). Maternal stress, specifically, is also though to be positively correlated with attachment insecurity in children (Ainsworth, 1967; Mazzarello, 2007).

Other researchers (e.g., Sagi, van IJzendoorn, Scharf, Joels, Koren-Karie, Mayseless, & Avezier, 2007) have examined ecological variables related to intergenerational transmission, such as environmental setting, parent gender, and culture. Other ecological variables (e.g., maternal education, depression, paternal support, and infant maternal grandmother support) have
also been examined, but found to be insignificantly related to the relationship between maternal and infant attachment (Tarabulsy et al., 2005).

**Environmental setting.**

With regard to environmental setting, Sagi et al. (2007) compared infants in home-based kibbutz settings to infants in a communal sleeping kibbutz setting. These authors explained that following birth until age 3 months, kibbutz infants receive care almost exclusively from their mothers in their mothers’ home. When their mothers return to work (approximately at age 3 months) and until the infants turn 2 years old, they are jointly cared for by the mother and the kibbutz caregiver. At first, the mothers typically arrange their work schedule so that they can return to the infant house to feed their infants. However, the mothers usually increase their work hours during the second part of the infants’ first year, at which time caregivers receive increasingly more responsibility for the infants. In their second year of life, it is presumed that all infants come under the full-time care of caregivers, with the exception of the afternoon hours (e.g., 4pm-8pm), during which time the infant is at home with their mother and father. However, at approximately 8pm, infants residing in home-based kibbutzim remain at home with their families, whereas those in communal sleeping kibbutzim are returned to the infant house by their parents and left in the care of the “night watchwomen” until morning.

Due to the inaccessibility of the mothers during the night (and, presumably, inconsistent responsiveness to the infants’ signals during this time), Sagi and colleagues (2007) hypothesized that communal-based infants would demonstrate a reduction in secure attachment compared to their home-based peers. After utilizing the AAI with mothers and the SS with infants, these authors discovered some intriguing results. Although there was no difference in the distribution of attachment styles between mothers in each group, as predicted, the infants in communal-based
arrangements were less securely attached than their home-based peers. Most interesting, however, was the significant drop in match rate between maternal attachment style and infant attachment style. Specifically, in the home-based sample, 76% of the infant-mother dyads matched; in the communal-based sample, only 40% matched. Sagi et al. hypothesized that an ecological variable (i.e., sleeping arrangement) influenced the transmission of attachment style. More specifically, the sleeping arrangement was hypothesized to “interrupt” the transmission of attachment style between mothers and their infant children.

Unfortunately, although these results are interesting, Sagi et al.’s (2007) study did have some methodological concerns that call into question the reliability of their results. Specifically, as the authors noted, due to the small target group, Sagi and colleagues had difficulty recruiting a large number of participants; approximately 45 infants and 45 children comprised the total group. In addition, these authors found no avoidant infant-mother pairs. Although this finding is consistent with the authors’ report of an underrepresentation in avoidant classifications in kibbutz settings, the complete absence of such classifications is somewhat odd.

Byrne, Goshin, and Joestl (2010) examined 30 mother-infant dyads in a New York state prison nursery program. These authors were interested in examining the impact of a prison nursery intervention program on the transmission of attachment from a sample of relatively insecurely attached mothers (i.e., 43% unresolved as per the AAI) in either a year-long co-residency or brief (i.e. mean 6.7 months) co-residency. Interestingly, these authors found that in both the year-long and brief co-residency programs, the concordance of attachment styles was only 33%. This number represents a significant divergence from the high rates of attachment transmission (i.e., upwards of 75%) found in other samples. Even more importantly, 75% of infants in the year-long co-residency intervention program were classified as securely attached-
despite that only 33% of their mothers were securely attached. The results of this study highlight the potential impact of early intervention focusing on attachment on a sample of relatively high-risk dyads and seem to lend credence to the idea that the transmission gap may be wider than we think.

In the only available study examining the transmission of attachment between biologically unrelated caregivers and their children, Dozier, Stovall, Albus, and Bates (2001) examined attachment concordance between 50 foster mothers and their infants. The infants had been placed into their foster mother’s care between birth and 20 months of age, and were assessed with the SS no fewer than 3 months after they had been placed into care. Adults were assessed with the AAI. Overall, the authors found that contrary to expectations, age at placement was not related to attachment quality. Both early- and late-placed infants were likely to manifest an attachment style mirroring that of their foster mother. In fact, correspondence between the secure/insecure split was 72%, a rate closely mirroring that of biological mother-infant dyads. The authors noted that despite early adversities (e.g., change in caregiver, placement into out-of-home care), on the whole, the foster infants demonstrated the capacity to organize their attachment behavior. Dozier et al. (2001) also noted that a secure attachment style on the part of the foster mother seemed to act as a protective factor. More specifically, only 21% of foster mothers who were classified as autonomous (i.e., secure) had infants with disorganized attachments; in contrast, 62.5% of foster mothers with insecure (e.g., dismissing, preoccupied, unresolved) attachment classifications had infants with disorganized attachments.

Lastly, Caspers, Yucuis, Troutman, Arndt, and Langbehn (2007) examined the ecological variable of adoptive status with respect to the transmission of attachment. These authors administered the AAI to 126 sibling pairs in which one of the siblings was adopted and the other,
the biological offspring of the adoptive parents. The majority of adoptees (i.e., 94.2%) had been
adopted prior to 6 months of age. Attachment concordance between the pair was found to be
independent of sibling age difference as well as gender. Overall, the authors found that
approximately 67% of the sibling pairs matched with respect to unresolved versus not-
unresolved classifications, and 53% were concordant with respect to primary attachment
classification. The concordance rate of 53% is slightly lower than the rate of 63% found by van
Ijzendoorn (1995a) in his metaanalysis, although it is unclear why this may be. The authors
concluded that the shared environment of the sibling pairs was likely very influential with
respect to the observed similarity in attachment styles. Although this study does not offer
speculation with respect to transmission of attachment style from parents to children, it does
present an interesting finding with respect to the influences of a shared environment in the
context of adoption.

**Parent’s gender.**

Another factor hypothesized to disrupt the robustness of intergenerational transmission of
attachment is the gender of the parent (Bernier & Miljkovitch, 2009). For example, van
Ijzendoorn (1995a) found a statistically significant difference between effect sizes with respect to
intergenerational transmission and the parent’s gender; the correspondence for mother-infant
dyads was $r = .5$, whereas the correspondence for father-infant dyads was $r = .35$. Some authors
(cf., Bernier & Miljkovitch, 2009; van Ijzendoorn, 1995a) have hypothesized that this difference
may be due to the fact that most researchers use the Strange Situation to measure infant
attachment security; this measure was designed specifically for mother-infant dyads. Another
possibility is that infants are more likely to develop an attachment relationship with their mothers
first; mothers tend to spend more time with their infants earlier in childhood, whereas fathers
tend to take a more active role when the child is sufficiently prepared to engage in play activities (Bronstein, 1984; as cited in Bernier & Miljkovitch, 2009). Also, as Bernier and Miljkovitch pointed out, Bowlby (1982) proposed that a child’s experiences with a supportive mother and “a little later father” contribute to the development of IWMs of attachment (p. 378).

With respect to parent gender and the transmission of attachment styles, Obegi, Morrison, and Shaver (2004) found that correspondence in attachment styles between adult mother-daughter dyads was 70% as measured by the Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991). Importantly, like the AAI, this measure has been widely used in studies of adult attachment. The correspondence between adult father-daughter dyads was nonsignificant; unfortunately, the authors did not report the correspondence rate. The lack of correspondence between father and children with regard to attachment styles has been replicated elsewhere. For example, other authors (e.g., Bernier and Miljkovitch, 2009) examined correspondence between fathers and their school-age children. Specifically, these authors assessed 16 married fathers and 12 divorced fathers who had full custody of their 4- to 6-year-old children. These authors were particularly interested in the divorced fathers, as they had a primary caregiving role; they hypothesized that the transmission of attachment styles would be more robust with the divorced fathers and their children. Importantly, the authors found no significant differences between each group of children with respect to attachment styles. However, the authors noted that children of married parents were marginally (but not significantly) less likely to show disorganized style than children of divorced parents. Also, married fathers were marginally (but not significantly) more likely to be classified as secure (autonomous) than their divorced peers. Overall, the authors found partial support for their hypothesis. Specifically, the authors did not find a significant transmission with the married sample, but they did find that divorced fathers
classified as preoccupied were more likely to have children who were ambivalently attached. The authors concluded that attachment transmission was more likely to occur when fathers have a primary caregiving role and demonstrated a preoccupied attachment style.

**Child’s gender.**

Del Giudice (2009) reviewed several studies across various countries (i.e., United States, Canada, Italy, Israel) in order to examine sex differences in attachment. He emphasized middle childhood as a critical point in which children—particularly those in high-risk environments—begin to show a shift toward a “sex-based reorganization of the attachment system” (p. 2). Specifically, he hypothesized that a majority of insecure females would begin to show a shift toward ambivalent attachment, and insecure males would begin to show a shift toward avoidant attachment. This author emphasized that, as previous theorists have speculated, attachment stability in childhood is closely tied to social stressors and negative life events (e.g., death of relatives, changes in living arrangement, divorce, abuse). He hypothesized that, for children in high-risk situations (i.e., children exposed to multiple social stressors and negative life events), sex differences and begin to play a stronger role, particularly in middle childhood.

Del Giudice (2009) noted a pattern which insecure girls tended to display an ambivalent pattern, whereas insecure boys tended to display an avoidant pattern. He hypothesized that sex-related differences in attachment style in middle childhood were likely related to different safety threats as well as sexual selection theory. Specifically, he emphasized that males growing up in high-risk environments would benefit from adopting an avoidant strategy, in which aggression and self-reliance paired with affective avoidance would be reinforced. Del Giudice also noted that passive, fearful, and withdrawn behaviors that are more typical of an ambivalent style may not be as adaptive for males given their social context. In contrast, females growing up in high-
risk environments would benefit from adopting an ambivalent strategy, in which immature behaviors and increased signals of need would be reinforced. Importantly, Del Giudice noted that in extremely high-risk environments, females may actually benefit more from an avoidant, self-reliant strategy, so as to procure social resources that they may not receive by depending excessively on others. These strategies are presumed to persist into adulthood and impact parenting behaviors with the next generation.

Overall, although Del Giudice’s (2009) study raises some interesting points, the findings must be taken with caution. First, studies reviewed in order to support Del Giudice’s hypotheses measured attachment in different ways. In addition, whether attachment differences by sex were statistically significant was not reported. Furthermore, it is unclear what combinations variables in high-risk environments (e.g., lack of protective factors, poverty, abuse) may result in stronger shifts toward Del Giudice’s hypothesized sex-based attachment shifts and consequent intergenerational transmission.

Bakermans-Kranenburg and van Ijzendoorn (2009) reviewed Del Giudice’s (2009) study and found results in contrast to the hypothesis that a) insecure boys tend to display an avoidant style and b) girls tend to display an ambivalent style. These authors argued that the gender effect on attachment style in middle childhood was measurement-specific, with only narrative-based approaches showing the pattern described. These authors also stressed that studies using the AAI for adults have not revealed any significant sex differences. In a more recent study by the same authors (2010), the authors again found that gender was not a significant variable in examining differences in attachment style. However, they did note that for adult parents in poverty as well as adolescents, a dismissing style was significantly more prevalent.
Similarly, Li et al. (2009) reviewed attachment literature and studies from China and found no significant gender differences. Importantly, these authors emphasized that the sexual selection theory described by Del Giudice (2009) may not be representative or consistent with Chinese populations. These authors emphasized that the “one child” policy in China requires males to invest in the quality, rather than quantity, of their offspring. These authors also emphasized that the intergenerational transmission of attachment in Chinese populations may explain the lack of gender difference in Chinese samples; they highlighted that the proportion of each attachment style was similar for both infants and adults. Although Li et al. (2009)’s hypothesis that Chinese culture may mitigate some of the behaviors proposed by sexual selection theory is interesting, it appeared that the distribution of attachment styles across the sample—rather than a longitudinal study or dyadic parent-child study—was used as a support for the idea of intergenerational transmission.

Culture.

One final ecological variable proposed to mediate attachment transmission is that of culture. Interestingly, the first empirical attempt to investigate Bowlby’s attachment theory was performed in a cross-cultural context by Mary Ainsworth (Minde, Minde, & Vogel, 2006). Ainsworth (1967) performed a field study of 28 infants and their mothers in Uganda in the mid-1950s. Her replication of this study in the United States led to the tripartite classification system (secure, avoidant, ambivalent) and later, to the development of the four-category classification system. Since that time, there have been numerous empirical investigations of attachment theory, attachment styles, and the impact of culture on how attachment security is defined and measured. Examinations of attachment behavior, assessment of dyadic attachment through the SS and other measures, and cross-cultural similarities and differences in conceptualizing attachment have been
implemented across the world in both the western and eastern hemispheres. An intensive review of these studies is beyond the scope of this paper. Unfortunately, however, at this time, no studies have directly examined the impact of cultural variables (e.g., poverty, family values) on the intergenerational transmission of attachment. As such, hypotheses about the role of cultural variables in intergenerational transmission must be made with caution. The following section includes a review of some studies in which hypotheses about intergenerational transmission of attachment may be made through a careful review of the findings.

van Ijzendoorn and Bakermans-Kranenburg (2010) summarized some findings on cultural differences as they relate to attachment. These authors emphasized that in general, there is substantial cross-cultural evidence as to the universality of attachment processes and patterns in infancy. However, attachment theory may be biased toward Western, industrialized societies in which individualized and distant relationships are emphasized, in contrast to more collectivistic societies in which cooperation and interdependence are stressed (Rothbaum, Weisz, Pott, Miyake, & Morelli, 2000). van Ijzendoorn and Bakermans-Kranenburg (2010) also reviewed previous studies (cf., van Ijzendoorn & Kroonenberg, 1988) in which intra-cultural variations in attachment styles were found to be more prominent than inter-cultural variations. As such, there appears to be some tension between authors promoting a universalist view of attachment theory (cf., van Ijzendoorn & Sagi, 1999), and those promoting an indigenous approach (cf., Rothbaum et al., 2000).

More specifically, some authors promote the idea that attachment is relatively similar, with only small differences, across countries and across cultures (universalist approach). In contrast, with reference to the indigenous approach, other authors hold that attachment theory is viewed through a lens distinctly shaped by Western thought and, consequently, must be
examined for this bias when investigating attachment patterns cross-culturally (Rothbaum et al., 2000).

van Ijzendoorn and Bakermans-Kranenburg (2010) also emphasized that poverty may mediate the effect of ethnicity on parental sensitivity. They noted that in a previous study (cf., Bakermans-Kranenburg, van Ijzendoorn, & Kroonenburg, 2004), African American infants in the United States were found to be less securely attached than their White peers. However, the authors emphasized that many African American families in their sample were faced with low income and poor housing, variables thought to negatively impact attachment security. Although the authors did not reference intergenerational transmission in the most recent study, it may be that poverty negatively impacts attachment security across generations, as it tends to be a barrier for many families across generations. Further, literature addressing the effects of poverty on attachment security appears to be limited to the United States; the author is unaware of literature addressing the effects of poverty on attachment security in other countries.

Sabatier and Lannengrand-Willems (2005) also hypothesized that culture plays a mediating role in the formation and transmission IWMs of attachment through the emphasis of family values (e.g., the importance of family, roles of parent, child, and individualism vs. collectivism), which in turn impacts socialization of the family’s children. These authors measured IWMs of attachment as well as culturally-mediated variables such as overall family values, parenting goals, values of children, and individualist versus collectivist values of 95 adolescents, their mothers, and maternal grandmothers in France. These authors noted that over time there was a shift in several values they had anticipated to be common to the three generations. For example, adolescents were more likely to endorse individualist values (rather
than the collectivist values heavily endorsed by grandmothers), and mothers were more likely to value autonomy, whereas grandmothers were more likely to value obedience.

In general, the authors reported that intergenerational transmission of attachment was noted, although attachment was measured in somewhat of an atypical fashion. More specifically, the authors utilized the Adult Attachment Scale (AAS; Collins & Read, 1990), which is broken into three clusters (e.g., close, depend, anxiety) that do not seem to correspond with the more prominent three- or four-factor model of attachment styles. Nonetheless, Sabatier and Lanengrand-Willems’ (2005) approach is worth noting due to the focus on cultural variables and IWMs.

Overall, although several authors have investigated the impact of cultural differences on attachment, few have specifically focused on the intergenerational transmission of attachment. Many authors (cf., Minuchin, 2002; Rothbaum et al., 2000) have emphasized that in assessing attachment styles, researchers should be attuned to the ways in which “gold standard” measures like the SS and AAI (as well as clinical observations) may fall short of accurately capturing dyadic attachment. These authors have emphasized that given the infusion of cultural assumptions on attachment theory and its applications (e.g., intervention, conceptualization), cross-cultural studies as well as an increased emphasis on cultural variables are highly needed. As such, further research and improved understanding of attachment theory in general is necessary in order to make hypotheses about the ways in which culture impacts intergenerational transmission of attachment.
INTERVENTIONS: DEVELOPING SECURE ATTACHMENT RELATIONSHIPS
WITH ADOPTED CHILDREN

The extent to which infant attachment styles influence later relationships is of particular importance and interest for parents of adopted children. As discussed in this paper, adopted children are at a higher risk than their non-adopted peers of coming from backgrounds of neglect (particularly lack of medical care), malnutrition, and abuse (van Londen, Juffer, & van Ijzendoorn, 2007). These youths, particularly those adopted internationally (since they are more likely to have spent time in orphanage care than their domestically adopted peers), are also at increased risk for motor, language, and cognitive delays (Roberson, 2006). Some authors (cf., Welsh, Viana, Petrill, & Mathias, 2007) have reported cognitive and language deficits in up 30-60% of adopted children. Adopted children are also at increased risk for physical problems, such as major birth defects, chronic medical conditions, acute infectious conditions, such as intestinal parasites and skin infestations, alcohol-related disorders (e.g., Fetal Alcohol Syndrome), and exposure to chronic infectious diseases such as tuberculosis, Hepatitis B, and syphilis (Welsh et al., 2007). Perhaps most importantly, these youths are at increased risk for psychological problems and disruptions in their attachment behavior (Lancaster & Nelson, 2009; Rutter, Colvert, Kreppner, Beckett, Castle, & Groothues et al., 2007).

Given the physical, behavioral, and emotional problems with which many adopted children present, their adoptive parents are often faced with the task of developing an attachment relationship with a child who may or may not be prepared to develop such a relationship. Several common themes noted by adoptive parents include a) fear or concern that their children would not grow to love them (and vice versa), b) grief, particularly in reference to mourning the loss of a fantasy of parenthood in which they are the “rescuers” of their children, and c) resentment
toward children who continue to display adjustment and attachment difficulties despite attempts by their parents to ease their transition into their new home (Lancaster & Nelson, 2009).

Overall, it is clear that there are many factors working against families with adopted children. Behavioral, academic, intellectual, and physical problems, as well as early adverse experiences (e.g., abuse, neglect, institutionalization) serve to exacerbate the difficulties in developing attachment relationships. Despite these risk factors, it is evident that most adopted youths are resilient and prove able to form attachment relationships with their new parents (Brodzinsky et al., 1984). Unfortunately, not all adopted youth successfully attach to their adoptive parents, and some experience the disruption of their adoption and yet another separation from a potential attachment figure. As such, it is essential to understand the factors hypothesized to support attachment relationships between parents and their adopted children, particularly as adoption disruption (and subsequent foster care) serves to increase risk of a variety of adverse outcomes for both youths and parents (Berry & Barth, 1991; Hollingsworth, 2003; Schmidt et al., 1988). Unfortunately, in reviewing the transmission of attachment styles between parents and children, the transmission gap proposed by researchers appears to grow wider in the context of adoption and as such, it is critical to explore and understand the limited information available with regard to the development of an attachment relationship with adopted youths.

**Building a Secure Base: Initial and Ongoing Tasks**

As a part of forming an attachment relationship, parents and mental health professionals must be aware of unique challenges faced by children who have been adopted as well as the experiences of families who adopt these children. Several authors (cf., Levy & Orlans, 2000; Roberson, 2006) have highlighted the need for adoptive parents to have and seek adequate support (i.e., pre-and post-placement services, support from spouses, friends, and family) as well
as possess basic competence in the domains of child development, attachment, and parenting. In addition to the aforementioned tasks, additional tasks faced by adoptive parents include a) coping with their own loss as well as assisting the child in coping with loss, b) dealing with cultural attitudes regarding adoption, c) resolving cognitive dissonance, and, in some families, d) awareness of and coping with issues associated with transracial adoption.

**Coping with loss.**

Both children adopted in infancy as well as children adopted at a later age must cope with loss and its associated stress (Brodzinsky, 1990; Brodzinsky, 1993; Lifton, 2010). According to Brodzinsky (1990), historically, mental health professionals and laypersons alike have assumed that adopted children cannot feel loss for individuals they have never known. This assumption has proved problematic, as many adopted children have reported experiencing feelings that they are “incomplete, alienated, disconnected, abandoned, or unwanted” (Brodzinsky, 1990, p. 7). These feelings also give rise to emotional and behavioral reactions associated with grieving (Bowlby, 1980). Furthermore, children who have experienced early loss may be predisposed to anxiety about future loss (i.e., if it happened once, it can happen again; Bowlby 1982; Lanyado, 2003). As a means of self-protection, these children may engage in attachment behaviors (i.e., reject first, avoid contact) that serve to anticipate and defend against loss at the expense of reparative interpersonal relationships (Schechter & Bertocci, 1990; Lanyado, 2003).

Brodzinsky (1990) has characterized the loss associated with early placement (i.e., placement into an adoptive family during infancy) as “covert,” emerging slowly over time as the child becomes more aware of the meaning and implications of being adopted (p. 7). Although this kind of loss may be less traumatic, it still may increase the child’s vulnerability to emotional and behavioral disturbance. In contrast, loss associated with separation from an attachment figure
is “overt,” presumably inducing greater stress and increased vulnerability; this stress is hypothesized to increase in relation to the number of separations, placements, and time in out-of-home care (Brodzinsky, 1990, p. 7). More specifically, overt loss is presumed to occur for older children, or those who have already formed an attachment relationship.

With respect to overt and covert loss, several researchers have observed the effects of separation from an attachment figure in naturalistic samples. For example, Robertson and Robertson (1989) described three phases of separation noted in young children (i.e., toddlers) who had been separated from a parent for a prolonged period of time; these phases include a) protest, b) despair, and c) detachment. According to these authors, the protest phase entails children both needing their attachment figure near them and expecting their attachment figure to return. When this reunion does not occur immediately, children tend to demonstrate behaviors associated with anxiety and anger, specifically, helplessness and stating a need for their attachment figure to return (the “despair” phase). Finally, when the reunion does not occur, children are hypothesized to enter the detachment phase in which they lose interest in and hope for seeing their attachment figure again, at which time they begin interact more with the environment. However, although these children appear to begin to become more interested in their environment, the effects of the separation are hypothesized to be seen in the phenomenon of re-experiencing the initial loss of their attachment figure, by anticipating and defending against the feared losses of other caregivers (Robertson & Robertson, 1989).

Roberson (2006) emphasized that many children waiting for adoption both domestically and internationally are placed in out-of-home care (i.e., foster care, orphanages, institutions). These youths may not only experience the loss of their primary attachment figure, but also experience additional separations from other caregivers by being placed in a series of placements
(i.e., foster care, orphanages, residential treatment facilities). Roberson observed that many of these youths appear to demonstrate a decrease in their protests from future separations, and move into a withdrawn or detached state as a means of self-protection. As mentioned previously, this self-protective behavior can also serve to make the process of connecting to new attachment figures more difficult.

Furthermore, Brodzinsky (1990) hypothesized that in contrast to peers who have lost a parent due to divorce or death, adoptees are at a disadvantage, as they may not only lose a parent, but also a sense of cultural and genealogical heritage, social status, and a sense of permanence with others (including their adoptive family). In addition, particularly given that losses of other kinds (i.e., death, divorce) are recognized by most societies and cultures, loss associated with adoption may be less obvious. Because this type of loss is less obvious, there may be decreased resources available (i.e., rituals, specialized mental health treatment, community support) to the child as a means of coping. Furthermore, whereas loss due to death is permanent, loss due to adoption may not be. Children who are adopted are then faced with the knowledge that their birth parents may still be alive, and consequently, available to them.

Commonly, the fantasy life of these children includes themes of hopes for reunification (i.e., “undoing” their loss) with their birth parents (Brodzinsky, 1990, p. 8; Lifton, 2010); these fantasies may cause anxiety and frustration for adoptive parents and other family members. The extent to which adoptive families are able to discuss and process these fantasies (e.g., through agreeing to participate or lead a search process for the biological family, visit the site of abandonment or relinquishment, acknowledge the child’s feelings and wishes) plays a direct role in decreasing the child’s misperceptions and intensity of affect surrounding the circumstances
surrounding their adoption (Brodzinsky, 1990; Schechter & Bertocci, 1990). Lifton (2010, p. 71) refers to this process as acknowledging “ghosts” (e.g., fantasy child, birth mother, birth father).

The extent to which adopted children are capable of recognizing and responding to adoption-related losses has been contested by various authors (cf., Brodzinsky, 1990, Schechter & Bertocci, 1990). Some authors (e.g., Brodzinsky, 1990) have highlighted elementary school as a time in which children have the cognitive capacity to view adoption in terms of family loss. For example, Brodzinsky (1990) indicated that although preschoolers tend to focus on the adoption story and define family as a group of people living together, elementary school children, as they are more capable of social-cognitive reasoning, begin to define family as a group of people who share a biological (i.e., blood relationship). Children who are 5 to 7 years old are hypothesized to begin to understand the meaning of adoption. In addition to being able to verbalize the events leading to the adoption, these children begin to display or express affect related to these events. Perhaps more importantly, these children are hypothesized to be capable of the insight that, in order to be adopted, one must first be relinquished or surrendered (Brodzinsky, 1990).

Not surprisingly, along with this insight, some adopted children begin to display associated emotional and behavioral reactions such as aggression, oppositional behavior, anger, depression, and a decrease or lack of communication (Brodzinsky, 1990; MacLean, 2003; Singer et al., 1985). Brodzinsky (1990) has suggested that these behaviors represent an adaptive response to the awareness of loss. The extent to which the adoptive family is trusted by and committed to the adopted child is hypothesized to shape the way children cope with and resolve adoption-related losses and traumas (Brodzinsky, 1990; Lanyado, 2003). Parents who are able to support the child’s needs, rather than allow their fears and anxieties to override the emphasis on the child’s experience, may be better equipped to help adopted children navigate this crisis.
(Schechter & Bertocci, 1990). Furthermore, it may be that the extent to which children can resolve feelings of ambivalence (i.e., strong negative and strong positive affect) toward birthparents, with appropriate support, can contribute to positive adjustment (Schechter & Bertocci, 1990).

Overall, it is evident that both adopted children and parents may struggle with issues related to both overt and covert experiences of loss. Children who are adopted internationally and/or who have experienced multiple placements or institutional care may be in need of additional support in navigating engaging in a new attachment relationship after previous experiences of separation or abandonment. Parents adopting these children must also be supported in navigating their experiences with the real child (versus fantasy image) who they adopt.

**Dealing with cultural attitudes regarding adoption.**

Cultural attitudes concerning adoption may play a role in the adjustment process and subsequent attachment formation (Brodzinsky, 1993). For example, cultural values surrounding the “realness” of adoptive families are expressed in comments such as “Who are your real parents?” “You sure are lucky to have been adopted,” and “You are so courageous to raise someone else’s child.” Adoptive families not only have to contend with insensitive comments, how friends and other community members will respond to the adoption, but also public policy around adoption; for example, whether and what type of records will be available.

The way adoptive families handle the inherent differences of adoptive family life is hypothesized to contribute to the adjustment among their child(ren) (Kirk, 1964, as cited in Brodzinsky, 1990). Adoptive families are hypothesized to respond to and communicate about adoption-related issues in one of a few ways: a) rejection-of-difference (RD), b)
acknowledgement-of-difference (AD), and c) insistence-of-difference (ID). An RD pattern is characterized by trying to take the “sting” out of adoption by behaving as they imagine nonadoptive families behave, ignore or deny differences about adoptive families, or emphasize that one must forget about being adopted (Brodzinsky, 1990, p. 18). Furthermore, an ID pattern entails not only acknowledging differences, but emphasizing these differences in such a way that they become a major focus; for example, such families may suggest that biological parents are responsible for the child’s behavioral or emotional difficulties.

In contrast, families adopting an AD pattern openly confront and explore adoption-related differences (Brodzinsky, 1990). These families are hypothesized to allow their children the freedom and opportunity to discuss feelings of differences. Brodzinsky (2005, as cited in Neil, 2009, p. 6) also refers to this phenomenon as “communicative openness.” Communicative openness, as defined by Brodzinsky (2005) is a willingness to consider, share, and explore the meaning of adoption within the context of the family, as well as support the child’s exploration of being a part of both an adoptive and biological family.

This author found that increased adoption communication openness, as measured by a fourteen-item self-report questionnaire he developed was related to lower levels of child behavior problems as measured by the Child Behavior Checklist (Achenbach, 1991) and higher self-esteem as measured by the Self-Perception Profile for Children (Harter, 1985). Unfortunately, the psychometric properties of the self-report questionnaire designed to measure adoption communication openness were not reported.

Another author (Neil, 2009) designed and implemented a similar study examining adoption communication openness and its relation to child outcomes as measured by the CBCL. This author reported that her measure designed to assess adoption communication openness was
designed by a colleague and that it met criteria for 70 percent correspondence between two independent raters (intrarater reliability). Interestingly, Neil (2009) found no correlation between higher (or lower) adoption communication openness and child outcomes as measured by the CBCL. She explained this finding by noting that her measure of adoption communication openness was designed as a parent interview, rather than a child self-report (as was present in Brodzinsky’s 2005 study). Neil suggested that children’s perceptions of parents’ adoption communication openness may be more important than the parents’ views or actual behaviors relating to adoption communication openness.

Although research findings (cf., Brodzinsky, 2003; Neil, 2009) have been mixed with regard to the impact of these and similar patterns on family adjustment, Brodzinsky (1987) has suggested that family strategies be viewed in the context of the child’s development. For example, children who are very young may benefit from an RD pattern that emphasizes family unity, connectedness, and trust, particularly given that they are not yet cognitively capable of understanding the meaning of adoption and relinquishment. However, as children age, an AD or mixed AD-RD coping pattern may be more beneficial, as differences can be acknowledged and explored in conjunction with the child and family’s felt interconnectedness and security. In fact, according to Brodzinsky (1990), Brodzinsky and Jackiewicz (1987) found that an RD pattern in families with older children may interfere with honest parent-child communication, thus contributing to poor adjustment. However, the source of this data could not be located within the scientific literature. As such, it appears that ultimately, research findings (cf., Brodzinsky & Jackiewicz, 1987, as cited in Brodzinsky, 1990; Neil, 2009) surrounding the impact of these various patterns must be interpreted with caution, as they are not only somewhat dated but also methodologically problematic (i.e., lack of child coping measures, lack of control group).
Awareness and resolution of cognitive dissonance.

Festinger (1957, as cited in Schechter & Bertocci, 1990) defined consonance and dissonance as “the fitting and nonfitting relations between pairs of elements…the things a person knows about herself, her behavior, and her environment” (pp. 80-81). There are several dissonant elements in the lives of adopted individuals:

a) Exposure to confusing labels for both their adoptive parents and biological parents (i.e., an amended birth certificate stating that they were born to their adoptive parents, individuals who claim their biological parents are their “real” parents)

b) The experience of being conflicted (e.g., having to draw a family tree)

c) Being told as a part of their birth story that they were relinquished because their birthmother loved them

d) The experience that because the adoptee was given up once, he or she might be given up again (perhaps by thinking about, talking about, or activating the search for his or her biological parents)

e) Processing remarks from outsiders; for example, “When outsiders remark on similarities between adoptees and adoptive parents, despite the adoptee’s awareness of no genetic connection; similarities are experienced as ‘unreal’ rather than coincidental” (Schechter & Bertocci, 1990, p. 81).

f) Hearing messages that they were “lucky to be adopted”

The author is unaware of research directly addressing resolution of cognitive dissonance as it pertains to adoption. However, many researchers (cf., Suter, 2008) have suggested strategies for responding to comments and reactions from others; this topic will be covered in the next section.
Transracial issues.

Overall, many tasks of adoptive families may be further complicated in situations of transracial adoption. In this situation, adoptive youths and families must not only contend with typical adoption-related adjustment, but also with societal values and the distinct experience of being phenotypically different (Morrison, 2004). More specifically, parents who adopt children transracially must be aware of some of the unique challenges associated with forming a secure attachment relationship and family identity. As Suter (2008) pointed out, racial differences between parents and children is an “implicit disclosure” of adoptive status, which a) creates ambiguity for outsiders and b) invites comments from others (p. 128). Many authors (cf., Ponte et al., 2010; Suter, 2008) have written about challenges associated with the responses of family and community members to the racial differences between parents and their adopted children.

Depending on the age of the child as well as the context of the challenge, parents may need to respond differently to unwanted or inappropriate comments or behaviors from outsiders. These parents are presented with a variety of options with regard to coping with challenges to family identity; including, a) answering comments directly, b) changing the subject, c) educating others, responding with humor, sarcasm, or ambiguity, d) ignoring or cutting off conversation, and e) guarding family privacy (e.g., “We don’t talk about our private family matters”; Suter, 2008, p. 139). There is limited research with regard to what types of responses are most likely to increase felt family stability. However, some authors (cf., Kirk, 1964, as cited in Brodzinsky et al., 1984) have argued that the rejection-of-difference (RD) coping style described previously may create a greater risk of adjustment problems given the lack of communication about and acknowledgement of adoption-related issues.
Overall, it is evident that parents adopting transracially must be prepared to attend to the way that outside comments or behaviors, as well as internal biases, impact the relationship with their child. Many authors (cf., McRoy & Madden, 2009; Morrison, 2004) have noted that parents need to maintain racial self-awareness as well as understand the dynamics of racism and discrimination and how these issues may impact both their and their children’s lives. This author recommended that parents a) learn about their child’s birth culture, b) find role models for their children, c) help their children talk about race and racism openly, and d) help their children recognize, survive, and handle experiences with racism.

**Building and Maintaining a Secure Attachment Relationship**

In addition to tasks related to building family identity and easing the child’s transition into a new family, parents who adopt children must also be aware of tasks directly related to developing a secure attachment relationship. Importantly, many authors (cf., Stams, Juffer, & van Ijzendoorn, 2002) have found that a secure attachment relationship predicts later socioemotional and cognitive development, even beyond the effects of infant temperament and gender. Of course, a secure attachment relationship is a parallel process. George and Solomon (1999, as cited in Roberson, 2006) have written about the phenomenon of caregiving styles being developed “in concert with and in response to the child’s attachment styles” (p. 733). Certain situations (i.e., separation, fear) are hypothesized to activate a biological system in both children and parents; the parents’ role in this process is typically to engage in some type of caregiving behavior (i.e., maintaining proximity, signaling to the child, protecting the child; George & Solomon, 1999). In attachment-laden situations, parents are hypothesized to choose from a “repertoire” of caregiving behaviors, typically consistent with the adult’s own attachment style. George and Solomon (1999) have described four caregiving styles closely mirroring the four
attachment styles; a) flexible, b) avoidant, c) ambivalent, and d) disabled. Flexible care mirrors that of a secure attachment style, in which the parent’s level of involvement with the child is consistent with their age and developmental abilities. Avoidant care mirrors that of an avoidant attachment style in which parents tend to demonstrate distant parenting (i.e., encouraging early independence). Next, ambivalent care is hypothesized to mirror that of a preoccupied or resistant attachment style; caregiving may occur in an overly frequent or intense manner. Finally, disabled care is hypothesized to mirror a disorganized attachment style; these parents are expected to fail to provide adequate protection toward their children, consequently creating a sense of insecurity and confusion in the parent-child relationship (George & Solomon, 1999; Roberson, 2006).

Of course, in the situation of adoption, it is expected that adoptive parents are capable of providing either corrective or non-corrective experience for the child, depending on their own attachment styles and experiences. More specifically, the transmission of attachment styles is hypothesized to occur between adoptive parents and their children just as it would between biological parents and their children (cf., Roberson, 2006). As it is presumed that adoptive parents are capable of establishing a secure attachment relationship with children who may have previously not had such a relationship, most studies (cf., Hoffman et al., 2006; Juffer, van Ijzendoorn, & Bakermans-Kranenburg, 1997; Welsh et al., 2007; Zeanah, Koga, Simion, Stanescu, Tabacaru, Fox, et al., 2006) that have focused on improving the attachment relationship emphasize parenting behaviors in the following domains: a) sensitivity, b) awareness of developmental factors, and c) responding to problematic behaviors.

**Sensitivity.**

Sensitive responding on the part of parents has been shown to be an antecedent to both adaptive functioning and coherence in identity development, personality development, and
cognitive development (Stams, Juffer, & van Ijzendoorn, 2002). Specifically, with respect to social and adaptive functioning, it is hypothesized that sensitive parents may serve as a positive role model with respect to appropriate relational behaviors, including problem-solving, establishing and maintaining friendships, and resolving conflicts (Stams et al., 2002). Sensitive parents are also expected to positively impact the personality development of their children, particularly by fostering their children’s sense of security, self-control, and competence to navigate difficult affective states.

Improving parental sensitivity has been shown to increase attachment security in foster children (Ponciano, 2010). For example, Ponciano observed 76 foster mother and foster child dyads as well as administered measures assessing maternal sensitivity and child attachment (i.e., Maternal Behavior Q-sort; Attachment Q-sort; AQS, Waters & Deane, 1985). Ponciano noted that the AQS was selected to measure attachment instead of the SS due to the potential of separations being experienced as traumatic by the foster children. She also noted that the Maternal Behavior Q-sort had been highly correlated with the Attachment Q-sort in previous research.

The children were between 9 and 39 months and had been placed in the home for at least 2 months (average length of time in placement= 1 year). The large majority (i.e., 83%) were in their first and second placement, primarily due to maternal drug use (50%) or abuse (14.5%). Ponciano (2010) reported that the majority (58%) of the foster children were securely attached to their foster parent, with the rest classified as avoidant (11%), ambivalent/resistant (9%), or disorganized (22%). Ponciano (2010) that children whose foster mothers were more sensitive as measured by the Maternal Behavior Q-sort were more likely to be securely attached. Children were also more likely to be securely attached if a) they were in the process of being adopted by
their foster mother, b) there were fewer other children in the home, and, surprisingly, c) if they had less experience as a foster parent. Ponciano (2010) explained this final finding by hypothesizing that the difficulty of the foster parent certification process may increase parental motivation to form a positive relationship with the children in their care.

In addition to fostering attachment security, some authors (cf., Schore, 2000; Schore, 2003) have hypothesized that sensitive parenting can positively impact infant brain development. Schore hypothesized that parents first begin to take the lead in coregulating the infant’s affect through tuning in to the infant’s facial expressions. Around 8 weeks of age, the primary visual cortex of infants begins to rapidly develop, and synaptic connections within this brain area are modified by visual experiences—particularly those shared with the primary attachment figure (e.g., shared gaze).

**Affect regulation.**

An important part of attunement in this manner is to minimize negative affective states while maximizing positive affective states (Schore, 2003). Schore suggested that attachment figures can remain attuned in this way by structuring interactions, regulating infant attention, facilitating development of verbal dialogue, and tuning into the infant’s internal state as well as overt behaviors. This attunement is especially important during the ages of 7 to 15 months, at which time the limbic system and associated prefrontal areas—particularly those in the right hemisphere of the brain—rapidly mature and develop. These areas are responsible for a variety of functions, including modulation of social and emotional behaviors, executive functioning (e.g., inhibition, decision-making), recognizing and responding to affective information, and theory of mind. Schore has noted that the development of these functions is “experience-dependent…this experience is embedded in the attachment relationship between the infant and the primary
caregiver” (p. 129). Therefore, the development of the infant’s right hemisphere is particularly dependent on the functioning of the primary attachment figure’s right hemisphere.

For infants, attachment experiences entail interactions involving affect-laden facial expressions, tone of voice, physical movements, and posture (Schore, 2003). With respect to affect regulation, sensitive and secure parents are hypothesized to accurately perceive and attune to both positive and negative affective states in their children (Haft & Slade, 1989). In contrast, parents classified as preoccupied may be overly attentive to their children’s expressions of fear as well as inconsistently respond to both positive and negative affective states. Parents classified as dismissing may be more likely to misread their children’s affect, particularly when it is negative and directed toward them. In general, when parents selectively attune to some types of emotion and not others, children learn that certain types of emotion are more likely to attain a response; however “this carving up of the child’s experience by the parent can be the beginning of the ‘false self’” (Haft & Slade, 1989, p. 169; Winnicott, 1964).

According to Bowlby (1973) attachment formation relies heavily (and is impacted by) a parent’s ability to respond to the attachment cues of his or her infant. It is important to note that attachment cues (e.g., crying, smiling, seeking proximity) are expressed both behaviorally and affectively. Thus, a parent’s response to their child’s attachment cues not only shapes the child’s expectations of what behaviors will result in particular responses, but also his or her expectations about what degree and types of affective displays will effect a certain response. For example, through their early relational experiences, children learn whether others will respond when they express need, sadness, or anxiety (Talbot & McHale, 2002). These children also develop a sense of confidence in their own ability to regulate their own affective experiences. When children develop expectations (IWMs) of others as helpful (and of themselves of capable of self-
soothing), they learn that emotional experiences can be positive and tolerated. More specifically, they do not need to defend or censor such experiences for fear of a negative inter- or intra-personal outcome.

Talbot and McHale (2002) note that because of their affective flexibility, rather than becoming overwhelmed or dysregulated, these children are better able to recognize and respond to new experiences (and thus alter their IWMs). Through their relationship with a sensitive attachment figure, these children develop IWMs that are open and flexible, thus allowing them to “perceive, reflect on, and metabolize a variety of affective experiences (that) allows him or her to continually integrate environmental feedback and…build increasingly complex social-cognitive structures…and (generate) appropriate responses to an ever-widening array of environmental challenges” (Talbot & McHale, p. 35).

In contrast, children whose parents respond inconsistently or negatively to their affective attachment cues not only learn that others cannot be relied upon, but also that “feelings of need, sadness, and fear are dangerously disruptive” (Talbot & McHale, p. 35). These youths lack a sense of confidence in the ability of themselves and others to tolerate their affective experiences and thus cope with this anxiety by defensively excluding or overemphasizing affect. Unfortunately, as a result, in the long-term these children are more likely to miss out on novel experiences that may lead to changes in attachment-related IWMs.

Of course, children are not the only ones with attachment-related IWMs (Marvin, 2002). As children have attachment-related IWMs, their parents also have caregiving-related IWMs. Bowlby emphasized that parents have a caregiving system that, like the attachment system, activates and deactivates as a result of interactions with their children. Many authors have described the nature of these interactions as an intricate “dance” between parents and their
children. As such, it is evident that interventions focusing on attachment security may achieve more success by focusing on attending to the IWMs of both parents and children.

**Developmental factors and relationship to trauma.**

Several authors (cf., Zeanah, 2000; Chisholm, Carter, Ames & Morison, 1995) have noted the presence of increased attachment insecurity and disorganization in samples of adopted children. Not surprisingly, many of the youths in these samples have experienced early social, physical, and emotional deprivation as well as outright abuse. Youths placed in adoptive families early (i.e., within the first few months of their lives) have been found to develop more secure attachment relationships in comparison to their peers placed at later ages (van den Dries, 2009). That late-placed youths may have more adverse outcomes is not surprising given that they are at increased risk of being exposed to abusive or suboptimal physical and emotional care. In fact, whereas adopted children in general show fewer secure and more disorganized attachments in comparison to nonadopted children (47% secure, 31% disorganized), those placed later than age 12 months were more at risk for attachment insecurity—particularly if they were adopted from Eastern Europe (van den Dries et al., 2009). More specifically, the authors noted children adopted from Eastern Europe may have increased rates of attachment insecurity because they may have experienced more severe deprivation (due to increased rates of institutionalization) compared to their adoptive peers from other countries (van den Dries et al., 2009). Consequently, some authors (cf., van den Dries et al., 2009) have hypothesized that early adoption may be an intervention toward the prevention of insecure attachment (rather than to change insecure attachment).

Developmental factors (e.g., the age of the child) must also be considered when engaging in interventions designed to promote secure attachment. First, it is important to note that
children’s sense of time is very different from that of adults; some older children may have experienced nearly their entire lives in out-of-home care, whereas others have spent most or all of their lives with an attachment figure (Schwartz, 2006). Older children may be more capable of participating in talk-intensive family-oriented interventions, given their more advanced cognitive and communication skills. Some authors (e.g., Barth & Miller, 2000; Schwartz, 2006) have noted that family therapy and counseling services were more helpful in reducing adoption disruption when children were older.

Furthermore, youths enter placement situations with different relational needs depending on the age in which they enter care. For example, infants may need the opportunity to establish attachment relationships for the first time. In contrast, older youths may have needs to maintain connections with former attachment figures as well as form relationships with new attachment figures (Cushing & Kerman, 2009). Overall, the relational needs of these children will be impacted by both their age and developmental history- including history that includes abuse.

**Responding to behavioral problems.**

Several authors (cf., Brodzinsky et al., 1984; Stams et al., 2002) have noted that adopted children have increased behavioral problems in comparison to their non-adopted peers. Specifically, adopted youths have been shown to demonstrate higher rates of externalizing behaviors as well as attention difficulties. Youths with disorganized attachment styles are at elevated risk with regard to externalizing behaviors, especially if they are combined with difficult temperament (Stams et al., 2002).

More specifically, children who are adopted both domestically and internationally have been shown to be at increased risk of externalizing behaviors as well as attention difficulties such as attention-deficit/hyperactivity disorder (ADHD). Many of these youths are treated with
psychotropic medication and/or behavioral interventions (Welsh et al., 2007). Unfortunately, the outcomes of traditional behavioral interventions with adopted youths have not been empirically investigated. In addition, it does not appear as though any behavioral interventions have been specifically developed with adoptive children in mind. Some authors (cf., Welsh et al., 2007) have noted that many parents with adopted children may seek support with regard to coping with their adopted children’s behaviors (amongst other issues) from web-based or in-person parent support groups.

**Interventions: Historical Background and Current Research**

Early interventions with respect to attachment frequently focused on the phenomenon of reactive attachment disorder (RAD). According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR; American Psychiatric Association, 2000), a diagnosis of RAD can be made when there is evidence of a) pathogenic care, and problematic and developmentally inappropriate manners of social relatedness as evidenced by either b) *inhibited behavior*, such as excessive hypervigilance or highly ambivalent responses (e.g., frozen watchfulness, responding to caregivers’ attempts at comfort with a mixture of approach, avoidance, and resistance), or c) *disinhibited behavior*, such as diffuse attachments or indiscriminate friendliness (i.e., a lack of selectivity with respect to choosing or approaching attachment figures). The aforementioned criteria must be met before age 5, and there is a presumption that pathogenic care is the cause of the behavioral disturbances (i.e., inhibition or disinhibition). The DSM-IV TR defines *pathogenic care* as entailing at least one of the following elements: a) persistent disregard for basic emotional needs (i.e., for comfort, simulation, and affection), b) persistent disregard for basic physical needs, and c) repeated changes in primary caregivers such that the formation of stable attachments is prevented.
Many authors (cf., Barth, Crea, John, Thoburn, & Quinton, 2005) have hypothesized that RAD has been overdiagnosed, primarily by clinicians who “overemphasize the attachment paradigm’s relationship to psychological disorders and behaviour problems” (p. 259). Despite the APA’s assertion that RAD is very uncommon, Barth and colleagues estimated that there may be as many as one million children-including half of all adopted children-diagnosed with RAD (DSM-IV TR, 2000; Werner-Wilson & Davenport, 2003; Barth et al., 2005). These authors attributed the vague wording of the term ‘pathogenic care’ to overdiagnosis in the case of adoption; Barth and colleagues also hypothesized that some clinicians do not consider alternative explanations for problematic behaviors in the case of adoption (i.e., Pervasive Developmental Delay).

**Early interventions: holding therapy.**

Early interventions aimed at improving the attachment relationship have been heavily criticized-not only for their lack of empirical support, but also (in some cases) for the ethics surrounding their use. For example, many early ‘attachment therapies’ were built on questionable theoretical background, such as the assumption that children with RAD have repressed rage stemming from early negative experiences, and that this rage interferes with attachment formation (Barth et al., 2005). The presumption with regard to change in these interventions was that, by helping the child release his or her rage, the child could be taught that his or her new parents could be trusted as caregivers.

In addition to hypotheses about repressed rage, other authors (e.g., Fahlberg, 1991, as cited in Barth et al., 2005) have proposed that the source of problematic behavior in so-called attachment-disordered children is a disruption in the arousal-relaxation cycle. This theory was based on the premise that because early caregivers failed to meet the child’s emotional and
physical needs, the child learned to trust only themselves (Thomas, 1997). Therapies based on this theory aim to repair the disruption in the arousal-relaxation cycle in three ways; a) “confronting the child,” b) “identifying and tearing down psychological defenses,” and c) “rebuilding...trust through a combination of coercive holding and nurturing touch” (Barth et al., 2005, p. 260). These holding therapies are thought to instill trust by forcing the child to accept that he or she is under the control of others (i.e., his or her new parents).

Some authors (cf., Barth et al., 2005; Simmons, 2007) described holding therapy as a process in which children are physically held by either parents or a therapist as they struggle through states of rage, desperation, and, ultimately, exhaustion-at which time, presumably, parents have a chance to make moves toward relational intimacy when the child’s defenses are down. Unfortunately, it is unclear how long such therapies last, but it is evident that some children endure “prolonged” holding, presumably occurring over a series of sessions (Barth et al., 2005, p. 260). Wimmer, Vonk, and Reeves (2009) described one such intervention that lasted up to three months, or shorter in some cases, involving “…2-3 hour sessions conducted over 2 weeks time” (p. 122). These authors did not note the average length of time children were held, but did note that many families found this procedure “physically demanding.” (p.121). Finally, some authors (cf. Wimmer, Vonk, & Bordnick, 2009) have described interventions involving holding as a key element in successful treatment (i.e., reduction of symptoms of RAD) as late as 2009.

Barth and colleagues have further described holding therapy as entailing three primary components: a) “prolonged restraint for a purpose other than protection,” b) “prolonged noxious stimulation (e.g., tickling, poking the ribs),” and c) “interference with bodily functions” (i.e., attempts to regulate affective experiences) (p. 260). Holding therapies have not been shown to be
a clinically effective means of improving the attachment relationship (Barth et al., 2005). In fact, holding therapy has been singled out as an intervention more likely to do more harm than good (Barth et al., 2005; Steele, 2003).

Overall, many authors have challenged the effectiveness and safety of attachment therapies such as holding therapy, preferring instead to support future research of empirically-supported treatments for externalizing behaviors (i.e., Incredible Years; Webster-Stratton & Hammond, 1997; Multi-systemic Therapy; Alexander & Parsons, 1982) with adopted youths. Perhaps most importantly, many authors have highlighted that there are no established clinical guidelines for treating disorders of attachment, despite the presence of diagnoses such as RAD (O’Connor & Zeanah, 2003; Wimmer, Vonk, & Bordnick, 2009). These authors emphasized that numerous books describing attachment theory and related interventions are available despite evidence available to support the effectiveness of the interventions they describe.

**Current interventions: Introduction.**

Currently, research on reparative attachment therapies is still in the early stages. Some interventions (e.g., Bucharest Early Intervention Project) focus specifically on adoptees, whereas others (e.g., Circle of Security) are developed with a more general aim of improving the attachment relationship. Given the limited nature of the research available, in this section, I will describe promising intervention projects as they relate to improving the attachment relationship, regardless of whether they were developed specifically in the context of adoption.

Importantly, it appears as though adoption agencies may choose to develop their own curriculum for parent training regarding attachment. For example, the Attachment and Bonding Center of Ohio developed a 12-hour curriculum called “Abroad and Back” (Keck, James, & Kupecky, 2003, as cited in Welsh et al., 2007). This program was designed to educate adoptive
parents about attachment-related issues relevant to international adoptees, such as the impact of orphanages on child development, and identity development of internationally adopted children. Unfortunately, as these programs have not been studied empirically, it is unclear to what degree they impact the formation and maintenance of secure attachment relationships between adoptive parents and children.

**Interventions emphasizing caregiver training.**

Overall, several authors (cf., Juffer, van Ijzendoorn, and Bakermans-Kranenburg, 2005; Stams, Juffer, & van Ijzendoorn, 2001; Steele, Henderson, Hodges, Kaniuk, Hillman, & Steele, 2007) have designed and piloted interventions emphasizing changing parental behaviors, usually with a particular focus on increasing maternal sensitivity so as to decrease disorganized attachments. These authors also reported that shorter interventions tended to appear more promising than interventions with more sessions, due to the idea that these interventions have more modest goals, are preferred by parents, and are easier to implement with fidelity (Welsh et al., 2007). Although many of these interventions have showed positive preliminary effects on attachment, they are limited in that a) most were conducted by the same team of authors, and b) all are in the early phases of research (i.e., have not yet been empirically supported through randomized control trials). Many of these interventions (i.e., Bucharest Early Intervention Project, St. Petersburg Project, Circle of Security) have been designed and implemented as large-scale projects, whereas others have been implemented through case study and smaller-scale projects.

**New Orleans Intervention.** Zeanah, Larrieu, Heller, Valliere, Hinshaw-Fuselier, and Aoki, et al. (2001) have developed programs both in the United States and abroad that show promise with respect to strengthening an attachment relationship. First, the New Orleans
Intervention for Maltreated Children in Foster Care was designed for children placed in the U.S. foster care system due to abuse and neglect (Welsh et al., 2007). This program aims to help foster children and their caregivers develop a secure attachment relationship in which the children use foster parents as a source of protection and comfort. The New Orleans Intervention helps foster parents a) construct an environment that supports emotional expression and b) recognize, interpret, and respond to their children’s signals—especially those which may be confusing. Foster parents in this program are assessed through a clinical interview that emphasizes eliciting attitudes toward the child in question; they are then given individualized interventions designed to support secure attachments between the foster parents and children. As of 2005, Zeanah and Smyke reported a reduction in maltreatment from mothers whose foster children had been returned to them; unfortunately, however, no information regarding a change in attachment styles has been reported.

**Bucharest Early Intervention Project.** Zeanah, Koga, Simion, Stanescu, Tabacaru, and Fox et al. (2006) also developed the Bucharest Early Intervention Project (BEIP), which involved creating “child centered” foster families and comparing outcomes for children placed in foster care to those left in Romanian institutions (Smyke, Zeanah, Fox, & Nelson, 2009, p. 722). The main aims of this project were to decrease adverse outcomes associated with institutional care, including adverse impacts on infant development and brain functioning. Specifically, the authors were interested in whether a) changing aspects of the caregiving environment could ameliorate the negative impacts of institution, as well as b) whether intervening during certain time periods could result in more positive changes.

In the pilot study of this program, 136 children between the ages of 5 and 31 months who had spent at least half their lives in institutions were chosen from six institutions in Bucharest.
Half of these children were randomly selected to be placed in foster care, whereas the other half were to remain in institutional care. These youths were assessed at 9, 18, 30, 42, and 54 months of age with respect to physical growth, cognitive functioning, language acquisition, social communication and interaction, attachment, and emotion expression (Zeanah et al., 2006; Smyke et al., 2009). Children from the foster care as well as those in the institutional care groups were compared to 72 children who had never been placed in institutional care.

Zeanah and colleagues (2006) described their intervention as the development of child-centered foster care, in which “foster parents became fully invested in and psychologically committed to the children in their care, loving them as their own” (Smyke et al., 2009, p. 722). These authors emphasized the political and cultural context of Romanian foster care and institutionalization, emphasizing that international adoption (except those between relatives) ended in 2001 after pressure from the European Union due to corrupt adoption practices (U.S. Department of State, n.d.; Smyke et al., 2009). More importantly, the authors emphasized that prior to this time, foster care was rare in Romania due to concerns about the lack of professional caregiving, attention to development, and concerns about child abuse.

In addition to foster care networks being nonexistent or limited, Romania also lacked trained social workers, as during the Communist era, there were no social workers. Smyke and colleagues (2009) reported that they recruited and trained recently graduated social workers in basic infant mental health, attachment, post-institutional adjustment, and common behavior problems. These social workers were responsible for visiting each foster family on a weekly basis for 1 year (visits were reduced to three times per month after 1 year) as well as frequent phone contact. Finally, the social workers on the BEIP team received weekly video consultation with “experienced U.S. clinicians” (Smyke et al., 2009, p. 723).
The BEIP team also recruited foster parents, with a particular focus on assisting these parents in receiving their foster parenting license, better understanding their knowledge and ability to parent young children, as well as informally assessing their emotional availability with respect to caring for post-institutionalized infants (Smyke et al., 2009). A total of 56 foster parents were recruited, the majority of whom had never fostered a child (e.g., 73%) and were married (54.5%). Next, the foster parents were given orientation with regard to the process of transition from institutional to family care, during which time, attachment theory was emphasized. The foster parents were tentatively matched to a child, after which time, they were allowed to visit. The authors indicated that during this matching process, the BEIP social workers provided counseling and support to biological parents who had contacted Child Protection authorities in an effort to recover their children. Biological parents who could be located were asked to consent to their child being placed in foster care; those who desired reunification went through a more formalized process with Child Protection officials during this time.

After transitioning into foster care, the authors reported that many foster parents reported regulatory (e.g., sleep, eating, toileting), developmental (e.g., speech, cognitive, gross motor) and behavioral problems (e.g., loudness, aggression, withdrawal, stereotypies; Smyke et al., 2009). Foster parents reporting such problems were given increased support through in-home visits, discussions regarding the impacts of institutionalization, and attending support groups with other foster parents. In addition, social workers were given support with regard to the work they were doing with foster parents, with a particular emphasis on how to answer general questions about child development, and responding with “persistence and nonjudgmental interest” during difficult times.
Overall, the preliminary results of this study included a significant reduction in both inhibited as well as disinhibited behaviors of children placed in foster care, including up to 18 months of foster care placement (Smyke et al., 2009). The authors also indicated that the quality of caregiving improved for the children in the intervention group—eventually mirroring caregiving of children in the never-institutionalized group, as assessed by the Observational Record of the Caregiving Environment (National Institute of Child Health and Human Development Early Child Care Research Network, 1996), a naturalistic observation method. Furthermore, there were only two disruptions in the foster care group (one due to death, the other due to the hospitalization of a mother who reportedly developed signs of a major mental illness).

Cognitive functioning as measured by the Bayley Scales of Infant and Toddler Development (Bayley, 1993) and Weschler Preschool and Primary Scale of Intelligence (WPPSI-III; Weschler, 2002) at age 30, 42, and 50 months (respectively) was higher in the foster care group as compared to the treatment as usual group, with increasing gains in cognitive ability the younger the child was placed in foster care (Smyke et al., 2009). The authors also reported that the children in the intervention group exhibited more “emotional responsiveness” as assessed by “puppets and peek-a-boo activities” at age 54 months (Smyke et al., 2009, p. 731). The authors also reported that there was no reduction in aggressive behavior disorders and ADHD at age 54 months in the intervention group; however, they did report reductions in internalizing disorders (i.e., anxiety, depression) at age 54 months in the intervention group, as well as a reduction of “signs in the emotionally inhibited type of reactive attachment disorder” in the intervention group at age 30, 42, and 54 months. Unfortunately, the authors did not describe how they measured the clinical outcomes.
Lastly, and perhaps most importantly, the Smyke et al. (2009) noted that children in the intervention group were significantly more likely to be classified as securely attached via the SS in comparison to the institutionalized group. Specifically, 49% of the intervention group evidenced secure attachment at 42 months compared to 17.5% of the institutionalized group. The authors noted that children who had never been institutionalized were more often classified as securely attached than all other groups; however, they did not report data on this outcome. Finally, the authors reported that disorganized attachment styles were significantly less common in the intervention group than in the institutionalized group although, again, they did not report numerical data to support this conclusion. Smyke et al. (2009) concluded that their intervention assisted formerly institutionalized children to not only make gains in cognitive and developmental domains, but with respect to supporting secure attachment, as well.

**St. Petersburg Project.** Another intervention developed to target attachment behavior in international adoptees’ countries of origin is the St. Petersburg Project (Muhamedrahimov, Palmov, Nikiforova, Groark, & McCall, 2004). This program was implemented in orphanages housing very young children (i.e., those under age 4), and involved training caregivers to sensitively and consistently respond to children in these institutions. An important element of this intervention was that the same staff were asked to work consistently with the same children, resulting in improvements in growth and development, particularly for children with disabilities. According to Groark, Muhamedrahimov, Palmov, Nikiforova, and McCall (2004), the children in the intervention condition- particularly those with disabilities- evidenced improvements in physical growth, motor abilities, language, and cognition. Perhaps most importantly, children in the intervention evidenced improvements in their personal-social development as measured by the Parent-Child Emotional Relationships Assessments (Clark,
1985). Although, unfortunately, the authors did not describe psychometric data for this measure, they noted that children and their caregivers evidenced greater “mutuality and reciprocity and less disorganization and tension” (p. 107). The children evidenced less irritability, increased attention and interest in play; their caregivers evidenced increased positive affect and involvement as well as less anxiety, inconsistency, and insensitivity.

**Circle of Security Project.** The Circle of Security project (Marvin, Cooper, Hoffman, & Powell, 2002) is an intervention aimed at toddlers and preschool-aged children who reportedly display problematic attachment behaviors. This intervention focuses largely on parental sensitivity, with a special emphasis on the way in which parents respond to their children’s attachment-related behaviors. Parents are expected to participate in this program for 20 weeks, in which as a group, they view videotapes of parent-child interactions, receive information on attachment theory, and receive feedback and support from the group facilitator (Welsh et al., 2007).

More specifically, the Circle of Security (COS) is unique in that it includes the therapist as a ‘secure base’ from which parents may be safe to explore their relationships with children (Hoffman et al., 2006). Group therapists in this intervention are expected to support caregivers’ abilities to understand their children’s needs with increased empathy, and identify and give name to unconscious anxiety (labeled “shark music” by the research team) demonstrated by infants. More specifically, the authors hypothesized that some parents need to be aware of the possibility of “…passing on an insecure pattern by misinterpreting some of her child’s signals,” particularly by considering how much their own emotions and experiences impact their awareness and interpretation of their child’s needs (p. 112). The authors went on to specify that some parents may have learned from their early attachment experiences, that “certain needs are like shark-
infested waters and must be avoided” (p. 112). Therefore, “shark music” is used as a term to remind parents to maintain awareness of how their own feelings impact their understanding of and reaction to what their child may be experiencing.

The COS group is designed to increase sensitivity and responsiveness by a) explaining children’s basic attachment needs, b) increasing parents’ capacity to recognize and understand subtle as well as obvious attachment behaviors, c) increasing caregiver empathy for the child, and d) increasing caregiver insight about how his or her own attachment history impacts his or her current parenting behaviors. Attachment styles in the COS are measured by the preschool version of the Strange Situation (MacArthur SS; Cassidy & Marvin, 1992) as well as a modified version of the AAI. Unfortunately, research on the MacArthur SS is limited (i.e., including an unpublished manual with unclear norms and age ranges), and the authors did not report any psychometric properties of this measure. The modified version of the AAI included questions from the Parent Development Interview (Aber, Slade, Berger, Bresgi, & Kaplan, 1985), questions from the AAI, and questions regarding the SS experience.

The pilot study of the COS involved 65 caregiver-infant dyads from Head Start and Early Head Start programs in Washington state. Infants ranged from 11-58 months, whereas caregivers ranged from 16-55 years old. With further regard to caregiver demographics, 86% of the sample were Caucasian, all were living below the poverty line, and the majority (86%) were mothers. Approximately 6% of the caregivers were foster parents. Hoffman et al. (2006) noted that this was a high risk sample given that the majority of caregivers reported high levels of neighborhood violence, as well as abuse or trauma during childhood. Because the COS is an intervention that is based on an individualized treatment plan for each infant-caregiver dyad, all dyads participated in the attachment protocols described previously. After identification of caregiver-infant
attachment patterns, the authors reported that the “linchpin issue” for each dyad was identified; they described the linchpin issue as the “single, most problematic pattern of attachment-caregiving interaction and caregiver internal working model that, if successfully changed, was expected to have the greatest positive impact on the child’s attachment pattern” (p. 1020).

Intervention effectiveness was examined by measuring child attachment 6 to 8 weeks prior to the intervention, as well as 10 days following the intervention. Prior to the intervention, approximately 60% of the infants were classified as disorganized, whereas after the intervention, only 25% of the infants were classified as disorganized. The authors also noted that approximately two thirds of the children classified as disorganized were classified as secure at the end of the study. The authors concluded that the COS intervention may positively impact attachment-caregiving patterns of high risk infant-caregiver dyads. Importantly, they did note that the results of their study must be taken with caution given that a) there was no control group as well as b) the fact that one of the 13 children classified as secure pre-intervention changed to disorganized post-intervention (this change was hypothesized to be related to a drug relapse on the part of the parent). Furthermore, the sample in this study included only a few children in foster care; it is yet to be seen whether similar interventions may be piloted with adopted children.

**Smaller-scale projects and case studies.** A similar intervention to COS, focused on increasing parental sensitivity, was designed and empirically studied by Stams, Juffer, van Ijzendoorn, and Hoksbergen (2001) in the Netherlands. These authors used a sample of internationally adopted infants placed with their parents before age 6 months. In this study, in one condition, parents were asked to complete readings which described how to be more sensitive and responsive to children’s signals; other conditions included assigned readings as
well as three sessions of videotaped feedback as well as a no-treatment control group (Welsh et al., 2007). This intervention was completed before the child’s first birthday, and effects on sensitivity were found at age 18 and 30 months, but only in adoptive families with no prior biological children (Welsh et al., 2007). Unfortunately, at the follow up when the children were 7 years old, no differences were noted between the groups (Stams, Juffer, & van IJzendoorn, 2001).

In a similar example of targeting parental sensitivity, Juffer, Bakermans-Kranenburg, and van IJzendoorn (2005) designed a short-term intervention with a sample of 130 adopted children, 90 of whom had no other birth children in the home, and 40 of whom did. These children were adopted from Sri Lanka, South Korea, and Columbia prior to the age of 6 months. Children in both subsamples were visited age 5, 6, 9, and 12 months. Similar to the aforementioned study by the same set of authors (Stams, Juffer, & van Ijzendoorn, 2001) between 6 and 9 months, the authors implemented one of two interventions: a) a book on sensitive parenting and playful interactions in which the child’s name was incorporated into the text, or b) three sessions of feedback on videotaped interactions between mothers and children and the same aforementioned book. The authors administered the SS as well as measured maternal sensitive responsiveness on the 9-point Ainsworth Sensitivity and Cooperation scale (Ainsworth et al., 1974). Overall, Juffer et al. (2005) noted that the sample receiving videotaped feedback and the personal book evidenced an increase in maternal sensitive responding as well as a decrease in attachment disorganization, whether other biological children were in the home or not. However, these authors noted that because in their previous study, the effects of this intervention were not noted at age 7 (but were present at 12 months), it may be necessary to engage in multiple booster or follow-up sessions so as to increase the likelihood of long-term effects.
Another intervention developed by Dozier, Lindheim, and Ackerman (2005) is called the Attachment and Biobehavioral Catch-up (ABC) program. This program involves 10 home-based sessions provided by social workers who are following a manualized protocol designed to train foster parents to respond sensitively as well as create a safe and nurturing environment, even when children do not display congruent attachment behaviors. Importantly, this program was developed in part to support foster parents who may display an unresolved or dismissive attachment style to become more aware of their attachment-related behaviors and move toward more optimal caregiving (Bradley, 2007). At the current time, the ABC project is undergoing a randomized control trial, and so it is unclear to what degree this program will have optimal long-term effects.

Another intervention designed to increase parental sensitivity is Parent-Child Interaction therapy (PCIT; Eyberg, 1982 & Robinson, 1982). This intervention utilizes live coaching via bug in the ear technology in order to facilitate a more secure parent-child relationship over 12 to 14 sessions involving both parents and children. These sessions are designed to increase positive play interactions between the dyad as well as to teach parents effective behavior management strategies. The author is unaware of research utilizing PCIT with adoptive families.

With regard to case study design, Juffer et al. (1997) described a case involving four intervention sessions designed to increase maternal sensitivity and improve secure attachment in a mother-infant dyad (Juffer et al., 1997). These authors administered the AAI to the 29-year-old mother in this dyad, in which she demonstrated a dismissing attachment style. Next, the authors performed a home visit and videotaped interactions between the dyad, as well as obtained informed consent. During the intervention phase, the authors provided a) general written information about sensitive behaviors, b) personal feedback regarding the videotaped mother-
child interaction, and c) semistructured discussions on past and present attachment experiences, which were intended to improve parents’ understanding of their child’s experiences and the links between their attachment histories and parenting behaviors. After the four intervention sessions, the authors administered the AAI to the mother and the SS to the child. Although her attachment style as measured by the AAI did not change, the mother’s sensitivity rating on Ainsworth’s nine point scale improved by approximately two points, approaching the mean of mothers of securely attached infants. Contrary to expectations, the infant was classified as securely attached through the SS. Although this study is limited by its small sample size and lack of pre-intervention measure of infant attachment security, it shows promise with regard to increasing maternal sensitive behavior.

Not all authors have found an intervention effect for sensitive parenting on attachment representations. For example, Velderman, Bakermans-Kranenburg, Juffer, and Ijzendoorn (2006) administered the AAI and SS, respectively, to 84 mother-infant dyads. These authors delivered an intervention aimed at increasing maternal sensitive behavior; this intervention included four home visits when the infants were between 7 and 10 months old, brochures related to sensitive parenting, video-feedback sessions, as well as discussions relating to how mothers’ childhood attachment experiences impacted their current parenting behaviors. In addition to measuring maternal sensitivity by the Ainsworth (1974) scale, the authors also administered the Child Behavior Checklist (CBCL; Achenbach, 1991) and examined the effects of the intervention on a subset of infants who were classified as “highly reactive” who had obtained a score at or above the 80th percentile on the Overall Reactivity scale of the CBCL (Velderman et al., 2006, p. 269). These infants were described as demonstrating more negative affect (i.e., irritability).
Overall, Velderman et al. (2006) found that mothers in the intervention group were deemed to behave more sensitively toward their infants compared to the control group. Contrary to expectations, the infants in the intervention group did not demonstrate increased attachment security in comparison to their age peers in the control group unless they had been classified as highly reactive. Velderman et al. concluded that short interventions aimed at improving maternal sensitivity may be most suited for children who are more susceptible to rearing influences (i.e., those who were highly reactive).

One final study by Steele et al. (2007) revealed promising outcomes with respect to improving parent-child attachment. This study is unique in that it is one of only a few that has examined parent-child attachment styles in adoptive families, with a particular focus on transmission of secure attachment. Steele et al. (2007) recruited 43 mothers who had adopted a total of 61 children ranging from 4 to 8 years old, all of whom had experienced some type of abuse as well as multiple placements (n= 2-18 placements). Parents were administered the AAI to elicit their attachment representations and styles, as well as the Parent Development Interview (PDI; Aber et al., 1985) modified for adoptive families. The modified PDI was designed to elicit attitudes regarding the parents’ attitudes about parenthood and their internal representations of the child. Children were administered the Story Stem Assessment Profile after 3 months of placement (Hodges & Steele, 2000), which was designed to assess the “child’s expectations and perceptions of family roles, attachments, and relationships” (p. 167). The authors provided only the interrater reliability for this measure, describing this variable as “extremely high” (p. 167).

Steele et al. (2007) found that the mothers’ beliefs about adopting were impacted by their attachment styles, with more securely attached mothers endorsing expectations that they would experience their adopted child in “more hopeful, joyful, child-focused, and reflective ways” (p.
In contrast, mothers classified as insecure or unresolved were more likely to describe their relationship with the adopted child using negative, disappointed, and desparing language. These mothers were also more likely to have children who depicted themes of aggression or role reversal in their story stems. The authors concluded that parental attitudes toward their new role as parents, as well as their representations of their adopted children, may mediate children’s internal working models and subsequent attachment behaviors.

Although no intervention was used in this study, it is important to note that the parents who a) were classified as secure as well as b) described their expectations of parenting and of their children in positive terms tended to have children whose story stems included more secure representations. It may be that, in addition to recruiting securely attached parents, parents who are insecurely attached may help foment a more secure attachment relationship with their children by modifying their expectations and attitudes of parenting and of their children.

**Interventions focused on treating children directly.**

In addition to therapies focused on increasing parents’ abilities to foster secure attachment, many researchers have emphasized interventions focused on intervening with children directly. Many of these interventions are done individually with children (parents are often seen by colleagues or as an adjunct to treatment), with the premise that through a contained, safe relationship with a psychotherapist, children may emerge more capable of forming attachment relationships with a caregiver (Hopkins, 2000; Lanyado, 2003; Lieberman, 2003). These interventions have been examined primarily qualitatively in the context of adoption.

Many researchers (cf., Hopkins, 2000; Lanyado, 2003) have reported single case studies examining the structure and impact of individual interventions with children who have difficulty
with attachment. A common theme amongst these interventions is the hypothesis that the child demonstrates a disorganized attachment style, often in the presence of behavioral concerns (e.g., aggression, inattentiveness, dissociation). Thus, interventions with these children are often structured with the premise that attachment disturbances exacerbate or cause the emergence of behavioral disturbances. Some authors (cf., Hopkins, 2000; Lanyado, 2003) have hypothesized that controlling or otherwise disruptive behaviors in such children occur in order to avoid the vulnerability of being dependent on others for safety and comfort. Unfortunately, these very behaviors are often themselves barriers to the formation of emotional intimacy with parents.

Therapists working individually with children who present with attachment disturbances frequently attempt to provide a secure base for children (Hopkins, 2000; Lanyado, 2003). Of course, these therapists often report experiencing being “tested” as well as associated behavioral outbursts when they “refuse…to play the roles assigned to (them), either as a rejecting, punitive adult or as a helpless, defeated child” (Hopkins, 2000, p. 340). These therapists also report that children they are seeing first develop an attachment to the “territory” or physical place of therapy, rather than to the therapist themselves (Hopkins, 2000, p. 340).

Other therapists (cf., Lanyado, 2003) have highlighted the idea of transitional phenomena, or “objects and experiences that help to contain and transform anxiety within what might be experienced as a terrifying void or chaotic gap, into experiencing that same psychic or external space as being potentially bearable and creative” (p. 342). This object might be physical, such as a toy, blanket, or ball, or it may be the experience of the therapeutic relationship, for example.

Many therapists (cf., Hopkins, 2000; Lanyado, 2003) report the positive impact of joint play after sufficient rapport and trust is established. Themes of safety/danger, control, loyalty,
separation, and regression (i.e., baby talk, loss of motor skills, wanting to be sung lullabies) are frequently reported in the description of play sessions (Lifton, 2010). Other therapists have emphasized attention to loyalty binds and “the tie to bad objects,” in which engaging in a new way of relating to others is experienced with guilt due to purportedly betraying early relationships as well as fear of the loss of the sense of self (Fairbarn, 1952, as cited in Hopkins, 2000, p. 343).

Other authors have implemented interventions in which both children and parents are directly involved, with a particular emphasis on joint play. For example, Weir (2008) described a case study in which he adapted an existing intervention (i.e., Theraplay) for use with a school-age adoptee who had been diagnosed with RAD. According to Weir, Theraplay aims to increase healthy attachments through a “balance of structure, engagement, nurture, and challenge… through the therapeutic context of playfulness” (p. 5). Theraplay is a short-term, directive, interactive form of play therapy which relies on four principles: a) structure by the therapist, b) social engagement and regulation, c) nurture and safety, and d) regulated challenges (Jernberg & Booth, 1999). This intervention was originally designed to improve social interaction in children with autism; however, it has also been used with children who are socially withdrawn, impulsive, or socially anxious (Wettig et al., 2011). Currently, most evidence for the efficacy of Theraplay lies in case studies and clinical reports; however, more recent longitudinal studies have supported Theraplay’s positive impact on children’s assertiveness, self-confidence, trust, social withdrawal, and expressive and receptive communication (Wettig et al., 2011). Although this intervention emphasizes attachment-based play and attempts to foster secure relationships, the author is not aware of any longitudinal research focusing specifically on Theraplay utilized to improve attachment relationships.
The author modified Theraplay (i.e., used one therapist instead of two, incorporated traditional play therapy games instead of solely using Theraplay games) in an effort to facilitate attachment between an 8-year-old male adoptee and his parents. One aspect of Theraplay that Weir incorporated into treatment was bridging parents into play activities after the child demonstrated some amount of readiness to include his parents. Weir described several games, many of which emphasized physical contact, eye contact, working together through frustration, and giving or receiving affection. The author noted that by the end of treatment, not only had the child’s destructive and noncompliant behaviors decreased, but the child was more capable of giving and receiving verbal and physical affection with others.

Overall, a few promising interventions aimed at changing attachment styles are available and currently being empirically tested. Unfortunately, the majority of these interventions have not been tested with children who have been adopted, and all are in the early phases of research and empirical testing. Notwithstanding these challenges, however, it appears likely that in the coming years, families with adopted children may have more empirically supported resources at their disposal.

**RECOMMENDATIONS**

Prior to forming an attachment relationship, it is important that parents and mental health professionals understand a) what relational skills the children already bring to the relationship as well as b) in which areas these children will likely need support with regard to relating to others. Mental health professionals working with adoptive families are also at a disadvantage given the current lack of empirically-based interventions developed to strengthen attachment relationships, as well as the lack of training directed at being more attuned to the needs of adoptive families. Adoptive parents often report a lack of support from both adoption agencies as well as mental
health professionals with respect to forming a relationship with their child. Finally, there is a lack of empirical research examining the unique aspects of attachment relationships in adoptive parent-child dyads. Specifically, there is a lack of clinical and research tools used to assess attachment in adoptive parent-child dyads.

In this section, I provide specific recommendations for mental health professionals and adoptive parents on how to improve the attachment relationship and reduce adoption disruption. Although there are many other entities that may benefit from these types of recommendations (e.g., policy makers, adoption agencies), I focused this section on recommendations for mental health professionals and adoptive parents as this is where the most change can happen. Finally, this section ends with recommendations for researchers to improve the current state of the adoption and attachment literatures.

**Recommendations for Mental Health Professionals.**

Therapists working with adoptive families are presented with a challenge given the current lack of clinical and research findings on how attachment is formed and maintained within these families. As such, therapists should be “adoption sensitive” (Barth et al., 2005, p. 262) by responding to the specific behavioral and emotional concerns presented by these individuals, while also remaining attuned to strengthening attachment relationships. In addition, due to the current lack of empirically-based interventions, therapists working with adoptive families may need to use creative means in order to observe and track attachment formation over time. Therapists may benefit from assessing IWMs of attachment for both adoptive parents and children so as to understand the unique impact of previous experiences (i.e., previous placements, experiences with biological children, family of origin issues) as well as current.
expectations regarding relationships on attachment formation. Each of these recommendations will be examined in more detail.

**Being “Adoption sensitive.”**

Barth et al. (2005) recommended that mental health professionals be attuned to the unique challenges faced by adoptive families, such as coping with developmental delays and emotional disturbances (e.g., RAD) caused or exacerbated by early histories of abuse, neglect, or deprivation. Therapists working with adoptive families must be attuned to the fact that problematic behaviors demonstrated by adoptive children are multiply determined, or impacted by pre-placement experiences and relationships as well as current family dynamics (Barth et al., 2005). One way to be adoption sensitive in this domain is to elicit information and remain attentive to parents’ concerns specific to adoption (Barth et al., 2005, p. 262). For example, mental health professionals should attend to parents’ a) fears about not being able to feel close to their adopted children (or expectations about how quickly their adopted children should feel close to them), b) beliefs about attachment therapies and RAD, and, if applicable, c) previous experiences with adoption agencies and mental health professionals.

It is essential that mental health professionals elicit and explore parents’ beliefs about attachment therapies and associated diagnoses (i.e., RAD). For example, such therapists may help parents to understand the limitations of attachment-based interventions such as holding therapies. First, however, it is important for therapists to understand the reasons for which parents may have pursued attachment-based therapies in the past. Barth et al. (2005) outlined several reasons why attachment therapies such as holding therapy may be attractive to parents, including a) a ‘radical’ means to address problematic behaviors and relational patterns, b) a way to decrease emotional distance between parents and their children, and c) parents’ fears that their
children may quickly become “out of control…(moving) into a world of sociopathy” (p. 261). Such parents may have been given the impression that their children are so dangerous or traumatized that they must intervene with drastic measures to prevent their children from becoming “attachment disordered… (like) Ted Bundy, Jeffrey Dahmer, Saddam Hussein, and Adolf Hitler” (Barth et al., 2005, p. 261). Therapists must assess and address the level of hopelessness, isolation, and distress that such parents may experience, and how these experiences impact their attitudes and behavior toward their adopted children.

Therapists should also help parents to be more aware of the limitations and dangers of some attachment-based approaches, as well as the lack of empirical evidence supporting the notion that the attachment paradigm “causes” all problematic behaviors (Barth et al., 2005, p. 263). These therapists may also help parents formulate alternate conceptualizations of the adopted children’s problematic behaviors; for example, how children’s behaviors may be impacted by the adoption experience, developmental capabilities, and reinforcement by others. Therapists must be attuned to the possibility that families either attribute problematic behaviors wholly to attachment or fail to consider the impact of attachment and relationship factors on problematic behaviors. As such, it appears that therapists must be able to find a middle ground specific to the family’s dynamics and history, incorporating factors such as a) pre-placement history, b) developmental functioning of all family members, c) attachment history of both the parents and children, d) community and cultural attitudes toward adoption, and e) other factors (i.e., financial constraints, social isolation, lack of support by the adoption agency) that may serve to exacerbate existing concerns.

Furthermore, mental health professionals must be attuned to the impact of previous psychological services provided by other professionals. For example, such therapists should be
aware if the adopted child has been subjected to potentially dangerous therapies such as holding therapy. Despite some parents’ perceptions of such therapies as physically safe, the therapist should be attuned to the possibility of such therapies to be emotionally traumatic for both the parents and children (Wimmer et al., 2009). Therapists may also find that families have not received any professional support, either from mental health professionals or the adoption agency. In these cases, it is essential that therapists provide information (and obtain consent) to adoptive families surrounding what therapy is likely to entail and why (i.e., research or clinical support for interventions) while also attending to the unique needs faced by these families. Next, therapists should attend to issues related to loss, trauma, and disordered behavior as they apply to each individual family, instead of giving families the impression that all adopted children are dangerous, incapable of forming attachment relationships, or in need of drastic measures (e.g., holding therapy, residential care) to address attachment disturbances.

**Understanding motivations for adoption**

Another area in which mental health professionals may choose to focus is that of the motivations of the adoptive parents. Understanding the rationale behind adoption may help mental health professionals better understand some parents’ conscious and unconscious expectations of the adoption experience, thus fostering parent-child wellbeing (Malm & Welti, 2010). In addition, some authors (cf., Steele et al., 2007) have found an association between both children’s and parents’ expectations of the parenting experience and attachment style. Finally, some authors (cf., Bruning, 2007; Schwartz, 2006; Silverman & Feigelman, 1990) have noted a connection between adoption disruption and the degree to which parents’ and children’s expectations regarding the adoption experience were met.
Many authors have hypothesized about some of the reasons parents may choose to adopt, rather than giving birth to biological children. Some authors focus on biological factors, whereas others place more of an emphasis on social or psychological motivations. Among reasons for adopting, the ones most cited in the literature appear to be a) infertility or other barriers to having biological children, b) altruism, c) a desire for companionship for either oneself or one’s biological children, and d) prior exposure to adoption (Malm & Welti, 2010; Tyebjee, 2003).

The literature is discrepant with regard to the degree to which infertility acts as a motivator for adopting a child (Malm & Welti, 2010). For example, some authors (e.g., Tyebjee, 2003) have claimed that infertility is noted by only a small portion of adults (i.e., one quarter) seeking adoption. Other authors, many of whom cited the National Survey of Family Growth (Hollingsworth, 2000) found that women who were treated for infertility were nearly five times more likely to explore adoption. Interestingly, Malm and Welti (2010) noted that this finding may even underestimate the impact of infertility as a motivator for adoption, as the National Survey of Family Growth (Hollingsworth, 2000) did not include women who had experienced infertility but sought adoption without engaging in infertility treatment.

The literature is also discrepant with regard to whether infertility as a motivator for adoption impacts the wellbeing of parents and children after the adoption. Prior research findings have not been consistent with regard to whether infertility is associated with positive parenting behaviors or parental stress (Malm & Welti, 2010). Interestingly, however, Malm and Welti (2010) found that parents who had reported infertility as a motivator for adoption were more likely (i.e., 63% versus 41%) than those who did not to note that having the child in their lives is “better than you ever expected” (p. 199). These authors hypothesized that parent-child wellbeing may have been elevated in this subsample due to the parents having lower expectations about the
adoption experience given that adoption may have been their “second choice” in regard to forming a family (p. 205).

Another motivating factor thought to increase adoption-seeking behaviors is that of altruism. Altruism as it relates to adoption has been described as “wanting to make a difference for a child in need,” “providing a family experience that would be positive for the child,” and “feeling that there are a great deal of children in need” (Malm & Welti, 2010; Tyebjee, 2003, p. 702). In fact, more than 80% of parents in a national sample noted that they wanted to adopt in order to provide a permanent home for a child (Malm & Welti, 2010). Tyebjee (2003) hypothesized that adoptions driven by altruistic desires were especially prevalent from 1970 to 1985, as evidenced by the increase in international adoptions during this time.

The desire to expand the family and/or find a companion for themselves or their own children has also been frequently reported by parents as a motivating factor for adoption (Malm & Welti, 2010). In fact, across all three adoption types (i.e., international, domestic-private, domestic-foster care) in a national sample, seeking to expand the family or find a sibling for their own child was reported by 85% or more of parents in each group (Malm & Welti, 2010). Additionally, Tyebjee noted that many parents reported considering how adoption would add meaning to the adult’s life or fulfill their religious or spiritual beliefs.

Prior exposure to adoption has been found to increase both willingness to adopt and adoption-seeking behavior (Malm & Welti, 2010). Exposure to adoption has been defined as knowing someone personally who had been adopted (Malm & Welti, 2010). Importantly, in a national sample, approximately 87% of adopted children (who were not known to their parents prior to the adoption) had parents who had prior exposure to adoption. Interestingly, prior
exposure to adoption was not associated with different motivations to adopt in the Malm and Welti (2010) study.

Other authors (cf., Gillis-Arnold, Crase, Stockdale, & Shelley, 1998) have described additional reasons parents may choose to adopt. These authors examined differences between adoptive parents and foster parents in Iowa with respect to their parenting attitudes as well as motivations to adopt or foster a child by asking these parents to complete a variety of surveys. Overall, these authors found that adoptive parents differed significantly from foster parents in four main areas; adoptive parents were reportedly more motivated to adopt based on a) wanting to rescue a child, b) desiring a companion for themselves, c) replacing a grown child, and d) desiring a companion for their own children. Gillis-Arnold et al. (1998) noted that foster parents appeared to be more motivated to foster due to financial gain. Although the results of this study raised questions regarding the differences between adoptive and foster parents, they must be viewed with caution due to the relatively low internal reliability of the survey given to participants (i.e., the Foster Parent Preservice Training Inventory; Lekies, Yates, Stockdale, & Crase, 1994).

In terms of the type of adoption, Schwartz (2006) described some of the reasons parents choose to adopt internationally versus domestically. She indicated that sometimes a couple or an individual does not meet criteria for some domestic adoption agencies due to their religious faith, age, or sexual orientation. Alternatively, a couple or individual may meet criteria, but find that the only children an agency can or is willing to place with them are older, have special needs, or have had several previous placements (Malm & Welti, 2010). Furthermore, they may find the process of open adoption, which is prevalent in the United States, unappealing.
Many authors (e.g., Hollingsworth & Ruffin, 2002; Malm & Welti, 2010) have described the demographic characteristics and perceived benefits reported by parents with regard to adopting internationally versus domestically. With regard to demographics, Latinos and individuals with high incomes have been found most likely to consider international adoption (Dave Thomas Foundation for Adoption, 2007). Overall, with regard to perceived benefits, Hollingsworth and Ruffin (2002) reported that parents who choose to adopt internationally may do so for various reasons, including a) increased chance of adopting an infant, b) shorter waiting periods, c) increased opportunity for closed adoptions, and d) the opportunity to adopt a child with a racial background that is considered “desirable” (p. 89).

More specifically, Hollingsworth and Ruffin (2002) noted that many parents wishing to adopt an infant may view international adoption as preferable given that the majority (i.e., 65%) of children waiting to be adopted domestically are over 6 years old (U.S. Department of Health and Human Services, 1999). Interestingly, in a national survey of adoptive parents, wanting an infant was cited by approximately 63% of parents as a primary reason for adopting internationally (Malm & Welti, 2010). In addition, wanting an infant was cited by nearly 81% of parents who had sought a private domestic adoption (versus adoption through the U.S. foster care system). Further, parents seeking international adoption may be subject to shorter waiting periods. For example, in 1999, the mean length of time to adopt a child domestically after the child became available for adoption was 18 months, compared to typically no longer than 14 months in the case of international adoptions (Scrivo, 2000, as cited in Hollingsworth & Ruffin, 2002; U.S. Department of Health and Human Services, 1999).

With regard to open versus closed adoption, some authors (e.g., Hollingsworth & Ruffin, 2002; Malm & Welti, 2010) have indicated that parents choosing to adopt internationally may do
so in order to obtain a closed adoption, in which there is no further contact with the birth parents after the relinquishment of the child. Specifically, several authors have described how many parents reported fears that if they participated in an open adoption, their child would be taken away from them by the child’s birth parents (Dave Thomas Foundation for Adoption, 2007; Malm & Welti, 2010). The idea that closed adoption may be particularly appealing to parents seeking international adoption was supported by Malm and Welti’s (2010) finding that approximately 52% of parents cited wanting a closed adoption as a primary reason for adopting internationally.

Finally, Hollingsworth and Ruffin (2002) hypothesized that “the increasing number of East European children suggest that the opportunity to adopt same-race children may be an additional benefit of international adoption” (p. 89). These authors cited further support for their hypothesis in noting the small percent of children adopted from African countries (1% in 1997) compared to those adopted from Eastern Europe or Asia (86%, combined). Hollingsworth and Ruffin (2002) also suggested that a “race hierarchy” may exist in which children from Asian countries may be seen as “exotic” and therefore more desirable (p. 89).

Overall, mental health professionals should be aware that there is an abundance of literature relating to the impact of various variables on parents’ decision to adopt, as well as the type of adoption these parents pursue. In addition to reviewing relevant research, however, it is important to elicit parents’ own perceptions regarding their motivation to adopt a child, particularly given that each person’s motivations and expectations are likely unique to their individual life experience. Overall, the more information mental health professionals can obtain relating to each individual’s unique circumstances, the more likely it is that interventions can be better suited to the needs of each particular adoptive family.
Interventions: Balancing creativity and empirical evidence.

With respect to interventions, therapists should not engage in interventions such as holding therapy that have a) no empirical support and b) the potential to harm children and families. Therapists should also maintain awareness of the limitations of current attachment-based interventions and may benefit by tracking the outcomes of the interventions they choose to utilize, including play therapy. Therapists may also consider adjunct treatments with empirical support for concerns such as behavioral problems (i.e., Incredible Years; Webster-Stratton & Hammond, 1997). Furthermore, therapists should provide psychoeducation on attachment, examine attachment behaviors within the unique context of the family presenting for treatment, and direct families toward available community resources (e.g., adoption support groups, state adoption subsidies). More specifically, some domestically adopted children may be eligible for the Federal IV-E subsidy program; these children must meet certain criteria (i.e., have special needs, be eligible for Supplemental Security Income (SSI), not be eligible for return to their birth family). Benefits provided by this program often include monthly cash payments, medical assistance (including Medicaid benefits), social services (e.g., respite care, day care, counseling), and, depending on state laws and adoption status, adoption-related expenses (e.g., home study fees, attorney fees and court costs; Child Welfare Information Gateway, n.d.). Parents whose children are adopted internationally often must search for other sources of adoption-related financial assistance, such as grants provided by the National Adoption Foundation (National Adoption Foundation, 2006).

In an example of creative assessment and interventions aimed at attachment, in their work with foster parents and their infants, Stovall and Dozier (2000, 2004) developed the Parent Attachment Diary, which was designed to help parents track the attachment behaviors displayed
by their infants when in distress, as well as their personal reactions to these behaviors (Stovall & Dozier, 2000). Foster parents are asked to note three events in which the child was physically hurt, scared, or separated from the parent every day for the first 60 days of their infant(s) were in the home. More specifically, foster parents are asked to track a) the child’s initial reaction to being hurt, scared, or separated, b) their own reactions to the child’s behavior, and c) the child’s reaction to the parents’ behavior. Stovall and Dozier (2000, 2004) noted that the Parent Attachment Diary data predicted SS classifications. Perhaps more interestingly, these authors indicated that the behavioral data gathered from these diaries revealed that, in insecure dyads, foster parents frequently complemented their foster child’s attachment behaviors (i.e., they responded to resistant behaviors with anger, or to avoidant behaviors with avoidance). As such, it may be that parents who demonstrate an insecure attachment style may be helped to adjust their behaviors toward their adopted child through the use of behaviorally-based measures like diaries in which data can be tracked and graphed over time.

Given research that supports the impact of sensitive parenting behavior on attachment security, mental health professionals may help adoptive parents develop and strengthen attachment relationships with their children by teaching and encouraging sensitive behaviors. Barth et al. (2005) noted that many attachment therapies may be attractive to parents because they “(locate) the blame for the child’s current difficulties with prior carers…(and) appear to relieve adoptive and foster parents of the responsibility to change aspects of their own behavior and aspirations” (p. 263). These authors recommended that mental health professionals help support parents in recognizing that, despite perhaps having other children in the home who are not engaging in difficult behaviors, the experiences and histories of the adopted child may be quite different, requiring a different parenting approach. Barth et al. (2005) caution therapists
from implying that “it is the children who need to change, not the parents,” as changes in parental behavior may contribute to children’s abilities to change their own behavior.

**Attending to IWMs.**

One way in which adoptive parents can be assisted with respect to increasing their awareness about their previous experiences is for therapists to attend to parents’ IWMs, or perceptions and expectations of themselves and others (Johnson & Fein, 1991). Attending to parents’ expectations and perceptions of how relationships ‘should’ operate may highlight problematic attitudinal or perceptual distortions that could exacerbate existing attachment difficulties. For example, parents (or mental health professionals) may have the perception that attachment is a trait of the child only, rather than a manifestation of a relationship between a parent-child dyad. More specifically, parents or mental health professionals may neglect to consider the impact of parents’ IWMs of attachment on the parent-child relationship, which may result in an excessive focus on the child’s behaviors, rather than an emphasis on the behaviors of all family members (Johnson & Fein, 1991).

Dozier et al. (2001) recommended that placing children with parents who demonstrate secure IWMs of attachment may be a preventive intervention for infants and children especially at risk for disorganized attachment. However, it would be practically impossible to further restrict adoptive parents from being matched with a child such that only those deemed securely attached would be permitted to adopt. It seems more plausible to assist parents who may demonstrate insecure attachment styles to change their IWMs and parenting behaviors, rather than prevent them from adopting.

Eliciting parents’ attitudes and fears about their own capabilities to become close to their adopted children may be more challenging for parents who have a history of insecure
attachment. One way mental health professionals may support these parents is by assisting them in being aware of how their own feelings and behaviors are impacted by their own attachment experiences (Holmes, 1999). Holmes (1999) and Fonagy and Target (2005) specifically recommended enhancing parents’ awareness as a means of enhancing reflective functioning, or ability to view others (i.e., children) as separate, but related. This author hypothesized that, were parents to be more able to a) reflect on the ways in which their feelings and behaviors are shaped by past experiences and objects, and b) reshape and reform these feelings and behaviors so that they are more in line with current experience, they may be more able to sensitively respond to their children’s (separate, but related) affect and experiences.

Parents with histories of insecure attachment, especially in which it is evident that elements of these histories cause distress, may benefit from psychotherapy themselves. These parents may be supported in understanding that although attachment appears to be intergenerationally transmitted, there is room and potential to change patterns of behavior in the present (Holmes, 1999). In fact, theorists have hypothesized that attachment styles can change in response to psychotherapy (Bowlby, 1982; Crittenden, 1997). Some authors (cf., Holmes, 1999) recommended that these parents may be offered the experience of a secure attachment through the transference relationship with a therapist, in which a) “initially, the patient will attempt to replay his or her attachment history with the therapist” and b) eventually, parents come to insight about how past experiences impact present behaviors (p. 126). As an alternate approach, parents may participate in more cognitively-based therapies in which they attend to and change automatic thoughts or ‘scripts’ by which they live (Holmes, 1999).
**Providing hope.**

Lastly, and perhaps most importantly, therapists working with adoptive families should provide hope. Of course, given that many adopted children have histories of trauma and loss, several authors (cf., Hopkins, 2000; Lanyado, 2003; McRoy & Madden, 2009; Rila, 1997) have emphasized that therapists themselves must obtain support from colleagues in order to provide optimal services. While remaining attuned to their own experiences, therapists may provide hope to families by connecting them with resources and peer support.

It is essential that parents obtain support from friends, family, and community members with respect to navigating the adoption process. As such, mental health professionals should alert parents to resources that may not be available through friends, family, or adoption agencies. For example, Welsh et al. (2007) described several internet-based parent support groups specific to adoption, including the Eastern European Adoption Coalition (EEAC, 2005) and the Parents Network for the Post-Institutionalized Child (PNPIC). These internet-based agencies provide information (e.g., on political, medical, psychological, social, and developmental issues), educational books and resources, parenting tips, access to mailing lists, and internet support groups for adoptive families. Other internet-based organizations, such as Families with Children from China (FCC) and Latin American Parents Association (LUPA) target specific populations, and provide relevant information on adoption laws and resources, travel information, as well as resources for ethnic identity development, and access to parent support networks.

Another way of increasing hope with parents may include describing longitudinal research on outcome studies with adopted children, which suggests that although many adopted children demonstrate initial behavioral, physical, and psychological problems, the majority catch up with their non-adopted peers, form secure attachment relationships, and become integrated
into their new family (cf., Brodzinsky et al., 1984; Singer et al., 1985). Additionally, families should be encouraged that, despite potentially frustrating short-term outcomes, the effect of sensitive parenting is likely to drastically alter the long-term trajectory of adopted children (Barth et al., 2005). As Elder (1998, p. 7) noted, “…early transitions can have enduring consequences by affecting subsequent transitions, even after many years and decades have passed.”

**Recommendations for Parents.**

It is evident that several barriers may face adoptive parents who hope to form an attachment relationship with their children. In addition to the financial costs of the adoption experience, families are often left without sufficient social and community resources to assist them in integrating their new child into the family. Many parents are faced with media portrayals of disastrous adoption experiences, through movies such as “Orphan,” documentaries (cf., “Child of Rage”) and news stories of dramatic adoption disruptions. As such, recommendations for parents fall into three domains a) planning for the adoption, b) advocating for the family and child post-adoption, and c) obtaining support both pre- and post-adoption.

**Planning for the adoption.**

Some parents noted that the pace or timing of the adoption made it difficult for them to adequately prepare and plan for the arrival of a new child (Steward & O’Day, 2000). For example, some families reported that despite a lengthy waiting period, they were often not provided with sufficient historical information on the child they would be adopting (Silverman & Feigelman, 1999). As such, it is essential that prior to adopting, parents obtain information about a) the adoption agency’s policies on post-placement support, and b) the likely time period (as determined by agency and state policies) between being accepted as a potential adoptive
parent and being matched with a child, as well as the time period between placement and finalization. Several authors (cf., Silverman & Feigelman, 1999; Steward & O’Day, 2000) have noted the importance of pre-placement planning, specifically, the importance of having finalization occur as a planned event, rather than as recognition of good behavior on the part of the child and/or parent, which may give children the impression that their behaviors determine whether they will be a permanent member of the family.

As another aspect of planning for the adoption, couples hoping to adopt should ensure that they explore with their partner their expectations around what constitutes acceptable parenting behavior. Some authors (cf., Steward & O’Day, 2000) have noted that conflicting parenting styles may lead to increased conflict between the couple, resulting in potential problems developing an attachment relationship with their children. Importantly, many parents may experience surprises with regard to their parenting style due to a) never having parented before, or b) a history of successful parenting experiences with biological children. However, in faced with parenting a new child who evidences behavior problems and/or attachment disturbances, couples may experience conflict with regard to how to cope with problematic behaviors. As such, an ongoing dialogue between parents is essential so as to minimize conflict which could serve to increase stress for both parents and children.

Lancaster (2009) described several strategies families may use to plan for the adoption, including several practical behaviors. For example, Lancaster recommended sending photos to the child, allowing him or her to say goodbye to important people, and finding out and honoring sleeping and eating preferences. Lancaster also noted that incorporating traditions from the birth culture or birth family into the family atmosphere may allow the child a sense of being permitted to retain aspects of their identity (rather than being encouraged to replace an ‘old’ identity with a
‘new’ one). As another idea, some authors (e.g., Hayden, Singer, & Chrisler, 2006) have found that within biological mother-child dyads, adolescent daughters who had heard positive and descriptive accounts of their birth more often had increased self-esteem as well as secure attachment. These authors attributed these findings to both descriptive communication as well as the formation of identity through shared experience. It would be interesting to see whether this finding could be replicated with adoptees, perhaps through the shared experience of the child’s arrival to the family, or through documentation of the arrival in a Life Story book.

Some authors (cf., Lancaster, 2009; Lancaster & Nelson, 2009) noted the importance of being aware of the child’s developmental level and likely needs prior to adopting. These authors noted that the attachment signals and needs of these children may differ based on their developmental level. For example, these authors noted that whereas a child who is 3 to 5 years old may enjoy a Life Story book with accurate details surrounding the adoption in the presence of reaffirmation that he or she is a permanent member of the family, a child who is 16 years old may need support and assistance processing feelings around searching for or having continued contact with the birth family.

**Advocating for the family and child.**

Families may have to advocate for themselves with regard to forming a family identity, particularly in the presence of a lack of community support or inappropriate comments from others. Such parents may also benefit from strategies designed to cope with responding to others’ (i.e., family, community members) fantasies and commentaries around “rescuing” adopted children, so as to strengthen family identity (Suter, 2008). Many authors (cf., Suter, 2008; Lancaster, 2009) have noted that depending on the child’s age and developmental level, parents may choose to verbally reaffirm the child’s place in the family, or shield him or her from
inappropriate comments (i.e., by moving away from the offending party). Suter (2008, p. 139) described several strategies used to strengthen and maintain family identity when faced by inappropriate, intrusive, or challenging commentary or questions by others, including answering directly, educating others (e.g., “There is nothing second class about my love for my daughters”), using humor, and guarding family privacy (e.g., “We don’t talk about our private family matters”). Affirming the child’s place in the family, either directly (i.e., by embracing the child’s ethnic, cultural, or biological background) or indirectly (i.e., by shielding from inappropriate comments) is an important aspect of strengthening the attachment relationship (Lancaster & Nelson, 2009).

Another area in which adoptive families may need to advocate for themselves and their child is with regard to obtaining services from schools or mental health professionals. Many adoptive families reported experiencing barriers in the school systems, particularly in the case of international adoption (Lancaster & Nelson, 2009). These families noted that school systems frequently attributed learning delays solely to the language acquisition process, rather than considering the added impact of acculturation, experiences of deprivation, learning disabilities, or differences in cultural socialization processes (i.e., school rules and teaching approaches; Lancaster & Nelson, 2009). Families also noted that, despite academic delays, their children were often placed in a grade that was consistent with their biological age. With respect to mental health services, many families indicated that counselors were a) unfamiliar with issues affecting adoptees and b) unwilling to work with the whole family. These families reported having to struggle to find therapists who would combine multiple sensory formats or work with other professionals (e.g., speech language therapists). As Barth et al. (2005) noted, being adoption sensitive entails working as a team in an effort to assist the child’s integration into a new family.
Obtaining support.

The efforts made while planning the adoption, adjusting to the presence of the child in the home, and advocating for the family’s identity as well as the child’s needs need not take place in isolation. Parents should be encouraged to seek support from any and all sources they may find useful. Research (cf., Ricks, 1985) has shown that a good social support network, including extended family, spouses, and others, buffers the effects of life stressors, and is positively associated with attachment security. For example, increased marital harmony is associated with higher quality parenting behavior, which has been shown to have a direct impact on attachment security (Sherefsky & Yarrow, 1976, as cited in Ricks, 1985).

By reaching out for support beyond the extended family and circle of friends, families may be exposed to other adoptive families with shared experiences (Lancaster & Nelson, 2009). One manner in which obtaining support from other adoptive families may be helpful is by giving parents resources to cope with the fact that becoming a family takes time (Rila, 1997). In informal interviews, Lancaster and Nelson (2009) reported that many families were surprised how long it had taken to become a family. These authors noted that some families found it helpful to “enjoy (their children) in the present rather than trying to control for future outcomes” (p. 309).

With further regard to timing, some authors (cf., Bernier & Miljkovitch, 2009) have hypothesized that father-child attachment transmission may occur later than attachment for mother-child dyads, particularly given that, in heterosexual parenting couples, mothers tend to be primary attachment figures. However, researchers have observed that fathers prefer playful interactions with their children, which is particularly appealing for toddlers and older children. These authors noted that they failed to find attachment transmission between fathers and children
when fathers were married and living with a woman; transmission was observed in dyads in which fathers had sole custody. As such, it may be helpful for fathers in heterosexual couples to understand that attachment may form first, or be more apparent, between mothers and young children (Bernier & Miljkovitch, 2009). In the case of older adoptees, however, it is possible that fathers may observe attachment transmission more rapidly. Consequently, fathers should be encouraged that it is common that building the attachment relationship may happen more slowly than they had anticipated.

Sometimes parents’ own pathology or unresolved attachment experiences may exacerbate the difficulty of forming a relationship with their adopted child. Parents should be open to exploring and accepting professional help, so as not to attempt to resolve early conflicts through their child (Limbo & Pridham, 2007; Steward & O’Day, 2000). An awareness of unresolved conflicts regarding their own attachment history can aid adoptive parents in becoming more attentive to their current feelings and behaviors toward their child. In fact, research suggests that simply by thinking about their behaviors in the context of their child’s perceived intentions and mental states may help promote changes in behaviors, through changes in thought patterns (Slade et al., 2005).

Changing mental representations and thought patterns regarding parenting and relationships is an essential step toward promoting secure attachment. As Ricks (1985) noted, “…although a parent may consciously wish not to treat her children as she was treated….it is difficult to act on this wish without experience having altered the underlying representational model of self and others” (p. 227). These parents may find encouragement in understanding that emotionally corrective experiences are possible. In fact, Ricks (1985) suggested that these experiences may occur after a) change within early relationships over time (i.e., change in
relationships with early attachment figures), b) repeated experiences in other relationships that serves to alter early IWMs, and c) strong experiences in one relationship (i.e., intimate relationships, the therapeutic relationship, etc.) that disconfirm and alter postulates held by IWMs.

**Increasing awareness of fantasies**

Overall, there has been little empirical research on the ways in which unconscious fantasies of the adoption experience impact parent-child adjustment and attachment. However, several authors have described potential problems associated with a lack of awareness of such fantasies. For example, Steward and O’Day (2000) noted that parents should also be aware of the potential problems that arise out of having conscious or unconscious fantasies surrounding “rescuing” an adopted child. These authors noted that rescue fantasies are often shattered by the reality of interacting with a child who may engage in hostile, defiant, or aggressive behaviors (instead of being “grateful for being adopted,” Steward & O’Day, p. 163). Parents should not be shamed for having such fantasies, but instead should be encouraged to explore reaching out to friends, other adoptive families, and, if needed, mental health professionals for support.

That children and parents should have difficulties both acknowledging and letting go of real and/or fantasy images of past persons is not surprising (Brinich, 1990). Both children and parents in these families must navigate a way to cope with the people who are not present, but who have still made an impact (i.e., the biological parents). Adoptive parents are faced with the task of acknowledging both the good and bad parts of their adoptive children *in the present moment*; adopted children must do the same. Both parties must acknowledge (rather than deny or disavow) aspects of the other that may be unpleasant- a process which requires both acknowledging and coping with ambivalence. In other words, as Brinich (1990) wrote, “within
the adoptive family…the child really does have other parents; and however little he knows about them, they are real, not imaginary. This gives his fantasies about these parents extra force…it makes it relatively easy for the adopted child to direct his loving and hating feelings at different sets of parents” (pp. 47-48). From a psychodynamic perspective, both parents and children must create a “workable alloy” or “fusion” of feelings of love and hate within relationships toward people who are both present (i.e., adoptive parents, children) and absent (i.e., biological parents) (Brinich, 1990, p. 49). For many families, this task is exceptionally difficult.

Parents who adopt older children may need to pay special attention to the role of unconscious fantasies or expectations of the adoption experience. Specifically, parental satisfaction with the adoption experience has been reported to be higher in the case of infant adoptions (Malm & Welti, 2010). Older children, by virtue of their age, are more likely to have experienced multiple placements, adoption disruption, and abuse by biological parents or other caregivers, and thus arrive in their new home with relational experiences and history that is independent of their adoptive family.

Furthermore, parents who are unaware of or ignore their fantasies or expectations for the adopted child may place themselves and their children at additional risk with regard to positive post-adoption adjustment. One aspect of maintaining awareness of such fantasies and expectations may be the ability to not only identify aspects of the ‘fantasy’ child, but also, to identify aspects of the child that are based in reality. Notably, impaired mentalizing or reflective functioning (i.e., ability to see the child as a separate being with his/her own wishes, desires, experiences) has been shown to negatively impact attachment security as well as parental behavior (Bernier & Dozier, 2003; Fonagy & Target, 2005; Slade et al., 2005). As such, parents who have difficulty mentalizing may have particular trouble in forming a secure attachment
relationship with their adopted child, as they may struggle in becoming aware of their unconscious projections and expectations of the child’s behavior as well as altering their parenting behavior to fit the real, rather than fantasy child.

Although it is important to understand and explore the ways in which parents’ fantasies of the adopted child’s behaviors and experiences differ from that of their child’s, it is also important to explore the ways in which shared life experiences may impact both fantasies of the adoption experience as well as the actual adoption experience, itself. In a particularly fascinating exploration of the potential risks and protective factors of shared life experience, Landerholm (2001) outlined some of the ways in which parents experiencing infertility have life experiences that may correspond with those of their adopted child. In this paper, Landerholm outlined the ways in which both adopted children and parents experiencing infertility may have traumatic experiences which share common themes; these experiences may include biological cut-offs (i.e., from former and future generations), a loss of predictability (i.e., with adult caregivers and with regard to family planning), and an intrusion of privacy (i.e., through multiple changes in caregivers and exposure to infertility treatments). Overall, it is evident that adoptive need to become aware of the ways their child’s experiences may be similar and different to their own in order to a) view the child as a separate being (i.e., mentalize), and b) reduce the potential of their own fantasies or unresolved conflicts negatively impacting the attachment relationship.

**Research Implications and Future Directions**

Unfortunately, despite the large amount of clinical and theoretical research specific to attachment and adoption, there are only a few research studies which address the phenomenon of the transmission of attachment styles between adoptive parents and their children. In fact, the research is limited with respect to what might ‘fill’ the transmission gap, even between
biological parents and children. The lack of empirical research regarding a) attachment-based interventions and b) the formation and perception of attachment in adoptive families does nothing to clarify the picture. In fact, it appears as though the transmission gap may grow wider in the context of adoptive families.

**Assessing attachment styles**

Traditionally, attachment is assessed for children by the use of the SS and for adults by the use of the AAI. Unfortunately, there is a lack of research with respect to the concordance of these measures in adoptive parent-child dyads. Furthermore, the SS may only be used with very young children, traditionally up to 18 months. Although many other measures are available for use with older children (e.g., Preschool SS, Attachment Q-set), these measures often lack empirical support, updated norms, and applications with adoptive samples. For example, the Preschool Strange Situation (Cassidy & Marvin, 1992), a rating system based on interactions between mothers and their preschool-aged children lacks clear age norms. Another measure, the Attachment Q-set (Waters, 1995) is a rating system in which an observer watches the child in naturalistic settings or during the SS and sorts behavior into various sets based on prototypes of secure attachment. Unfortunately, it appears as though this measure has not been updated since 1995. Other measures based on the SS have yielded problematic findings due to the high proportion of disorganized attachment in adoptive samples in comparison to the general population. For example, Main and Cassidy (1988) reported that the modified SS may not be appropriate for adopted youths given the small sample size of the original study as well as the high prevalence of disorganized classifications in adoptive samples. Clearly, in order to accurately assess attachment with adoptive samples, updated and empirically supported research measures are essential.
Measures designed to assess attachment in older children are even more limited. For example, other measures include a story-completion approach (e.g., Attachment Story Completion Task [ASCT], Bretherton, 1990; School-age Assessment of Attachment, Crittenden, 2010), in which school-aged children are presented with story stems and props, with the idea that their attachment-based IWMs will be elicited based on the nature of the task (Bretherton, 1990; Johnson & Fein, 1991). Unfortunately, these measures target a wide range of youths; the ASCT is reportedly meant for 3 to 7-year-olds, and the School-age Assessment of Attachment is meant for 5 to 12-year-olds. Each of these measures has limited empirical support (i.e., only one or two studies, by the same set of authors). However, some authors (cf., Johnson & Fein, 1991) have advocated for their use in the context of providing child welfare service providers with information on children’s likely behaviors and approaches to attachment-relevant situations (i.e., separation, eliciting protection/comfort, responding to physical injury).

Other authors (cf., Schmueli-Goetz, Target, Fonagy, & Datta, 2008; Target, Fonagy, & Schmueli-Goetz, 2003) have developed measures designed to assess attachment in late childhood (i.e., with 7 to 13-year-old children). These authors developed the Child Attachment Interview (CAI), a downward extension of the AAI which is meant to elicit IWMs of attachment. This measure has only been researched thus far with the same research team who designed it; however, the authors have described promising psychometric properties, such as test-retest reliability across 3 and 12 months of .7 and .62, respectively. Another measure with promising features is the People in My Life (PIML; Ridenour, Greenburg, & Cook, 2006) self-report form for 10 to 12-year olds designed to elicit children’s internal representations of attachment (i.e., IWMs) to parents, teachers, peers, school, and neighborhood. Ridenour et al. (2006) reported that PIML subscale scores on parent attachment were significantly negatively correlated with parent
ratings of externalizing on the CBCL, self-report of depressive symptoms on the Reynolds Child Depression Inventory (Reynolds, 1989). Further, the parent attachment subscales (trust, communication, and alienation) demonstrated adequate internal consistency, ranging from .65 to .88. This measure is also appealing in that it measures security of attachment on a continuous, rather than dichotomous (i.e., secure, insecure) scale. Some authors (cf., Johnson & Fein, 1991) hypothesized that measuring attachment security on a continuum may assist in looking at changes in attachment over time, which could be particularly useful in the context of adoption.

Overall, one major area in which the attachment literature is lacking with respect to applying attachment theory to adoptees is with regard to research-based and clinically-informed measures designed to assess attachment in adoptive samples. Watson (1997) has recommended that assessing the capacity of children to form attachments should entail three major components: a) obtaining a history of the child’s caretaking experiences in the first 3 years of life, b) taking into account the child’s developmental level, particularly with regard to “the capacity for interpersonal engagement, the level of trust, and regressive behavior which suggests earlier unmet needs,” and c) direct observation of the “nature and appropriateness” of the child’s relational approach both when offered to engage in a relationship and when faced with separation from a significant current caretaker (p. 167). Unfortunately, other than emphasizing the need for direct observation, Watson (1997) did not provide any suggestions with regard to how to assess elements such as regressive behaviors and relational approaches.

Watson (1997) also recommended that prospective parents be assessed with regard to their ability to be potential caretakers for children with attachment difficulties. He recommended that parents’ developmental histories (i.e., their attachment history with particular emphasis on
the first 3 years of life) as well as current and historical relationship history (i.e., friends, family, intimate relationships), and perspectives on engaging in intimate relationships.

Assessing perceptions of attachment

Assessing prospective parents’ perceptions of attachment may increase successful matching between these parents and their adoptive children pre-placement. Watson (1997) recommended that parents be assessed with regard to their perceptions on intimate relationships, with a particular focus on the degree to which relationships are important, how needs for intimacy are viewed, and their “tolerance for people who do not like to get too close” (p. 167). Other authors (cf., Rila, 1997) have emphasized that a parent’s readiness to engage in an attachment relationship with a child should be assessed as a part of the home study process. Rila (1997) recommended that children be matched with a family according to their attachment styles, as well as the parent’s understanding of their own attachment history and needs. This author also recommended that the parent’s perceptions of and expectations surrounding affection be assessed prior to being matched with a child. For example, adoptive parents expecting that their children will immediately attach and show affection to them may need to be encouraged that understand the child’s perspective surrounding the risks of attaching to a new caregiver. It would be interesting to see whether parents who are deemed to be more comfortable not receiving immediate affection do in fact demonstrate more positive outcomes (i.e., secure attachment formation) when paired with children who may be more inhibited or dismissive of attachment.

Future directions.

Future research focusing on adoption and attachment should examine the specific ways in which attachment behaviors may be similar and different for adopted youths in comparison to their non-adopted peers (Johnson & Fein, 1991). Research focusing on adoption and attachment
should seek to answer several questions, including the degree and manner in which adopted children develop IWMs of attachment; for example, do adopted children demonstrate different or similar attachment-related behaviors toward different caregivers? Research (cf., Singer et al., 1985; van den Dries et al., 2009) shows that adopted children tend to form secure attachment relationships, but is this process similar to that of biological children and their parents? Some authors (cf., Dozier & Rutter, 2008) have hypothesized that this process may move along a different trajectory depending on the age of the adoptee as well as their pre-placement history.

There is also a lack of empirical research examining the degree to which attachment relationships are transmitted from adoptive parents to their children. Of course, many authors (cf., Ricks, 1985) have emphasized some problems inherent in longitudinal research, such as the time span required, and concerns about how accurately individuals remember childhood experiences when measuring adult attachment (on, for example, the AAI). However, only two authors (e.g., Dozier et al., 2001; Sagi et al., 2007) have examined the transmission of attachment with a sample of youths in out-of-home care, and these studies were performed with foster parent-child dyads and parent-child dyads in Israeli kibbutzim, respectively. Many authors (cf., Juffer et al., 1997; Singer et al., 1985; van den Dries et al., 2009) have examined attachment styles of adopted children only, without methodological consideration of the attachment style of their parents. However, to date, there has been no empirical research which measures adoptive parents attachment styles (e.g., through the AAI) as well as the attachment styles of their children (e.g., through the SS). Unfortunately, the lack of empirical research examining attachment styles of both parents and adopted children leaves several unanswered questions with regard to the transmission gap as well as how adoptive families may form secure attachment relationships with their children. Longitudinal studies assessing pre- and post-adoption
attachment styles for both parents and children are essential in order to better understand the needs of this unique population as well as provide appropriate interventions.
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