

ABSTRACT

Title of Dissertation: THE INFLUENCE OF DISCREPANCIES IN
ADOLESCENT-PARENT PERCEPTIONS OF THE
FAMILY ON ADOLESCENT OUTCOMES IN
TRANSRACIALLY ADOPTIVE FAMILIES

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Transracial adoption creates a family in which the adoptive parent or parents are of a different race, culture, or ethnicity than the child, most often Caucasian adoptive parents and racial minority children (Vandivere, Malm, & Radel, 2009). Concerns about the influence of the racial differences within the family on child development and the competency of white parents to successfully raise racial minority children have led to an examination of how the family environment facilitates adoptee development. One aspect of the family environment researchers have focused on is the extent to which adolescents' views of their family differ from their parents'.

Transracial adoption provides a compelling familial context to explore the role of discrepancy in adolescent-parent perceptions of the family on adolescent development because not only do the age and familial role of the child and parent differ, but so do the biology and race. Guided by developmental theories (Duvall, 1977) and the Circumplex Model of Marital and Family Systems (Olson, Russell, & Sprenkle, 1979), this study examined the extent to which transracially adopted adolescents and their parents differ in

their perceptions of family cohesion and conflict, and explored both the linear and curvilinear relationships between perceptual discrepancy and adolescent outcomes. The role of parental awareness of race was also investigated.

The study utilized data collected as part of a national research study on transracial adoption. Seventy transracially adopted adolescents and one of their parents completed an online survey. Findings indicate transracially adopted adolescents and their parents tend to agree on the level of cohesion and conflict in their family. Moderate discrepancies in adolescent-parent perceptions of conflict were found to be related to higher adolescent self-esteem and less internalizing behaviors. However, adolescent development was not related to whether they and their parents had a shared perception of cohesion. The unique role of family cohesion in transracially adoptive families to counteract visible differences among members and solidify the family unit is discussed. Findings highlight the complexity of individuation in the context of transracial adoption, and present implications for adoption professionals, transracially adoptive families, and future investigation of adolescent development in transracial adoption.

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Chapter 1: Introduction

Families created through adoption make up 2% of the households in the United States, 40% of which are transracial adoptions (Vandivere, Malm, & Radel, 2009). Transracial adoption is defined as an adoptive family in which the adoptive parent or parents are of a different race, culture, or ethnicity from the child, most often Caucasian adoptive parents and racial minority children (Vandivere et al., 2009). Concerns about the influence of the racial differences within the family on the development of children and the competency of white parents to successfully raise well-adjusted racial minority children have led researchers to examine the developmental outcomes of transracial adoptees. Additionally, there is a developing interest in understanding components of the family environment that facilitate or hinder adoptees' healthy development, particularly in adolescence when children begin to formulate their ethnic identity and concept of self.

The developmental stage of adolescence is often regarded as a tumultuous period of growth, marked by extensive cognitive, biological, and psychosocial changes. In the midst of these changes, adolescents negotiate a unique set of developmental tasks enabling them to move out of childhood and prepare for the transition to adulthood. In particular, adolescents balance the development of a healthy sense of autonomy and understanding of the self as an individual with the development of romantic and peer relationships (Cummings, Davies, & Campbell, 2000). Despite the demands and unique developmental tasks, most adolescents successfully navigate this stage of development and become well functioning, healthy adults (Elmen & Offer, 1993).

Recognizing that adolescence is a pivotal and demanding developmental stage for all adolescents, adopted adolescents often face unique struggles related to the

accomplishment of autonomy and identity formation (Riley, 2006). Adopted adolescents may tentatively approach independence due to a fear of total abandonment stemming from the loss of their birth parents. Additionally, during identity formation, adopted adolescents must integrate the heritage of their birth family and their adoptive family into their personal identity. Adolescence for transracial adoptees is further complicated by being the most visible form of adoption, often due to differences in physical characteristics and skin color between the adolescent and the adoptive parents (Grotevant, Dunbar, Kohler, & Lash Esau, 2000). Therefore, part of transracially adopted adolescents' emerging sense of self involves a recognition and navigation of two or more cultural backgrounds due to racial differences within their family.

Critical to the successful navigation of these changes and accomplishment of developmental tasks in adolescence is the family environment (Cummings et al., 2000). Inherent in the search for autonomy is the striving for independence from the family. Therefore, the response of parents when their child is an adolescent can facilitate or hinder the accomplishment of this task. In particular, it is important for parents to realign their relationship to their adolescent, shifting from a primarily protective role to preparing their child for adulthood by supporting their exploration of self and separateness from the family (Walsh & Scheinkman, 1993). However, this transition typically is not seamless, and the stress of renegotiating the relationship is related to increased conflict between parents and adolescents (Allison & Schultz, 2004). Additionally, as adolescents establish autonomy from the family, they forge their own points of view separate from their parents' perspectives, which may contribute to increased disagreements.

While the family environment has been implicated as a pivotal contributor to adolescent development in general, the influence of family on adolescent establishment of autonomy may be complicated in transracial adoptive families. Adoptive parents may be supportive of the adolescent's bids for separation and exploration. However, support from adoptive parents may be inhibited if they experience anxiety about losing the loyalty of their child when they search for a sense of self beyond the adoptive family (Riley, 2006). It is typical for adolescents to feel misunderstood by their parents when establishing a self separate from the family. However, the experience of feeling misunderstood may be heightened for transracial adoptees. Transracially adopted children may feel that their racial majority parents never fully understand them because they are of a different race (Steinberg & Hall, 2000), thereby lacking a shared experience of being a racial minority in the United States or a shared cultural background. In particular, transracially adopted adolescents may sense that their racial majority parents do not understand their experiences with discrimination and their need for racial identity formation through racial socialization (Samuels, 2009; Steinberg & Hall, 2000). Additionally, as adopted adolescents strive to separate from their adoptive family, their feelings of being misunderstood and their lack of physical resemblance to their adoptive parents may facilitate exploration of their birth culture or search for birth parents which are entities distinct from their adoptive family (Steinberg & Hall, 2000). Successful navigation of developmental tasks may be particularly challenging for transracially adopted adolescents due to these unique qualities.

Given the challenge for adolescents of establishing one's autonomy and own perspective, one aspect of the family environment researchers have focused on when

seeking to understand adolescent development is the extent to which adolescents' views of their family and the world differ from their parents'. It is typical for family members to maintain both shared and discrepant views of the family (Carlson, Cooper, & Spradling, 1991), since the family is a distinct entity, but is comprised of individual members with different roles and ages. Not surprisingly, adolescent perceptions of the family environment often differ from their parents' perceptions. In particular, adolescents tend to view their family more negatively compared to their parents (Feldman, Wentzel, & Gehring, 1989; Ohannessian, Lerner, Lerner, & von Eye, 1995, 2000), including a tendency to report lower levels of family cohesion and adaptability (Ohannessian et al., 1995, 2000).

Two opposing theoretical perspectives have been utilized to understand the impact of discrepancies in adolescent-parent perceptions of the family on adolescent developmental outcomes. Developmental theory suggests that minor discrepancies in adolescent-parent perceptions of the family serve an adaptive function for adolescents by supporting the developmental accomplishment of autonomy and identity formation (Grotevant & Cooper, 1986; Holmbeck & O'Donnell, 1991). Although discrepancy in perceptions may be viewed as an indicator of healthy separation from the family for adolescents, a clinical perspective based on the Circumplex Model of Marital and Family Systems suggests that a family context in which family members maintain discrepant views is dysfunctional and consequently may experience heightened family stress (Olson et al., 1983). Additionally, the adjustment of individual family members may be negatively impacted by discrepant views of family functioning (Moos & Moos, 1994). The empirical literature suggests that discrepancies in adolescent-parent perceptions of

the family are often related to family stress and poorer adolescent adjustment, including low self-competence, poor self-esteem, depression, and anxiety (Carlson et al., 1991; Ohannessian et al., 1995, 2000).

A notable limitation of the foundational research on the influence of discrepancy in perceptions of family functioning on adolescent outcomes is that these studies did not account for the possible influence of individual reports of family functioning on adolescent wellbeing prior to considering the unique influence of discrepancy in perceptions of family functioning. Therefore, the construct of discrepant views as a valuable contributor above and beyond individual views of family functioning to understanding adolescent outcomes may be called into question. The current study began to address this limitation by exploring the possible confounding relationship between discrepancy in perceptions of the family and individual reports of family functioning, and teasing out the unique contribution of discrepant views of the family on adolescent outcomes.

Transracial adoption provides a unique familial context for exploring adolescent-parent discrepancy in perceptions of the family because not only do the age and familial role of the child and parent differ, but so does the biology and race of family members. Although there are no known studies that have explored perceptual discrepancies between white parents and their transracially adopted children, retrospective accounts of transracially adopted young adults expose a disconnect between the actions of their racial majority parents and their actual needs as racial minority children (Samuels, 2009). Adult transracial adoptees describe often having been more exposed to white cultural orientations than their own cultural community and not being socialized or given preparation by their white parents to deal with experiences of discrimination that result

from their minority status (Evan B. Donaldson Adoption Institute, 2009; Samuels, 2009). Transracially adopted adults clearly describe discrepancies between their need for their white parents to recognize the racial differences within their family and articulate their parents' deficient fulfillment of this need. Although retrospective in nature, the accounts of discrepancy suggest that white parents and their transracially adopted child may view their family environment very differently. Therefore, the current study aimed to describe the perceptions of the family maintained by transracially adopted adolescents and their parents, in addition to exploring the level of discrepancy in their views of the family, while adolescents still live with their parents.

Given the literature suggesting discrepancy in perceptions of the family contribute to adolescent developmental outcomes, the influence of divergent views of transracially adopted adolescents and their parents on adolescent development is of interest. Overall, recent research suggests racial minority children adopted into white families adjust equally as well as same-race adoptees in areas such as academic achievement, self-esteem, self-concept, delinquency, behavior problems, depression, and general health (Burrow & Finley, 2004; Feigelman, 2000, Juffer & van IJzendoorn, 2007; Weinberg, Waldman, van Dulmen, & Scarr, 2004). According to a review of the literature by Lee (2003b), approximately 70 to 80 percent of racial minority children raised by white adoptive parents have infrequent serious behavior and emotional problems. The rate of serious behavior and emotional problems for transracial adoptees is similar to the rates for same-race adoptees and non-adoptees. While promising, the finding unfortunately implies that 20 to 30 percent of adopted children, including racial minority children raised by white parents, do struggle with serious behavioral and emotional problems.

Additionally, the conclusions about adolescent adjustment drawn from prior research on transracial adoptees may be limited as many studies relied on parental reports of their child's adjustment or transracially adopted adults' retrospective reports of their childhood, instead of reports from the adolescents themselves. Given that some transracially adopted children fare better than others, the current study explored the influence of discrepancy in adolescent-parent perceptions of the family on transracially adopted adolescents' developmental outcomes. In particular, there is a focus on developmental outcomes often regarded as indicators of successful or failed accomplishment of developmental tasks, such as self-esteem, internalizing behaviors, and externalizing behaviors.

When seeking to understand the link between discrepancy in views of the family and adolescent adjustment in transracial adoptive families, it is important to consider family influences unique to the context of transracial adoption that have been associated with adolescent outcomes and may influence the relationship between discrepancy in views of the family and adolescent outcomes. In particular, extensive research on transracial adoption has implicated the role of the cultural competence of transracial adoptive parents on the outcomes of transracial adoptees (Samuels, 2009; Vonk, 2001; Vonk & Massatti, 2008). Transracially adoptive parents' cultural competence to facilitate a family environment conducive to their racial minority children's development has been conceptualized by Vonk (2001) as involving racial awareness, multicultural planning, and survival skills. As the foundation for cultural competence, racial awareness refers to the parents' recognition of the role of race, ethnicity, and culture in their lives and in the lives of others, in particular their children. Multicultural planning refers to parents actively

connecting their children to the community of their child's birth culture, while survival skills refers to parents preparing their children for coping with discrimination.

Evidence in support of the connection between components of transracially adoptive parents' cultural competence, in particular multicultural planning, and child wellbeing is developing (Lee & Quintana, 2005; Thomas & Tessler, 2007; Yoon, 2001). However, the focus of research has been on Asian children adopted into Caucasian families, lacking a focus on transracial adoptees of other ethnicities or races. Additionally and understandably, the majority of child wellbeing measures have been limited to the child's connection to their birth culture, ethnic perspective taking, and ethnic identity. However, the impact of parental cultural competence on other aspects on child wellbeing, such as psychological adjustment, problem behaviors, and self-esteem, is limited. Given that awareness of race has been conceptualized as the crux of cultural competence (Vonk, 2001), the literature's focus on the multicultural planning component of parental cultural competence with minimal investigation of parental racial awareness is surprising.

Therefore, the current study aimed to expand the research on the influence of parental cultural competence on transracially adopted adolescents' developmental outcomes. Borrowing from Vonk's (2001) conceptualization of parental cultural competence in the context of transracial adoption, the influence of parental awareness of race will be explored as a contributor to adolescent outcomes. If parents endorse colorblind attitudes and lack awareness of race, they may be less likely to recognize and address the needs of their racial minority child. Additionally, endorsing color-blind attitudes has been found to be related to prejudiced views (Bonilla-Silva, 2003), further serving to deter parents from providing a supportive family environment. On the other

hand, parents who are color-conscious, that is, aware of race and the ways it can structure one's experiences in life, are better equipped to facilitate a supportive family environment and their child's healthy development.

To gain a clearer understanding of how the family environment influences adolescent outcomes in transracial adoptive families, the current study also explored how parental awareness of race and discrepancies in adolescent-parent perceptions of the family intersect to influence adolescent outcomes. Parental awareness of race may moderate the relationship between adolescent-parent discrepancy in perceptions of the family and adolescent outcomes. More specifically, poorer adolescent outcomes may be expected in the context of too much discrepancy in perceptions of the family and low parental racial awareness due to a combined negative effect. Parental lack of racial awareness may exacerbate the negative influence of high discrepancy on adolescent outcomes. Racially unaware parents are potentially creating a family environment in which the parental understanding of the family is very different from that of their racial minority child who is likely to be more aware of the impact of racial differences within the family. On the other hand, when parents appreciate the significance of racial differences and recognize the challenges of navigating minority status in our society, they are better equipped to create a family environment conducive to striking a balance of compatible and disparate views of the family, thereby promoting the healthy development of their adolescent.

Transracial adoption is a microcosm within the adoption world providing a unique and compelling familial context to explore the role of discrepancy in adolescent-parent perceptions of the family on adolescent developmental outcomes. The current study

aimed first to describe the perceptions transracially adopted adolescents and their parents maintain regarding the cohesion and conflict in their family, in addition to examining the extent to which transracially adopted adolescents and their parents differ in their perceptions. The current study also aimed to investigate the unique contribution of discrepancy in adolescent-parent perceptions of the family on transracially adoptive adolescents' developmental outcomes, such as self-esteem, internalizing behaviors, and externalizing behaviors, above and beyond individual views of the family. Specifically, this study examined both the linear and curvilinear relationships between perceptual discrepancy and adolescent outcomes. Additionally, the role of the familial context, in particular parental awareness of race, on adolescent outcomes was explored in relation to transracially adopted adolescent outcomes. Finally, the study sought to understand the role of parental awareness of race on the link between discrepant perceptions of the family and adolescent developmental outcomes. Findings from the study were used to extend the current literatures on discrepant family perceptions and on transracial adoption, enabling a better understanding of how family context and dynamics influence adolescent development in transracial adoptive families.

Chapter 2: Literature Review

Theoretical Approaches to Understanding Individual and Family Development in Transracial Adoptive Families

The research and conceptualization of adoptees' development has been grounded in theory, such as attachment theory (Gray, 2002), family systems theory (Reitz & Watson, 1992), and stress and coping theory (Smith & Brodzinsky, 1994). In contrast, the empirical investigation of transracial adoptees' developmental outcomes and transracial adoptive family dynamics has largely been atheoretical (Frasch & Brooks, 2003). However, following a review of theories related to identity development, racial and ethnic identity development, adoption identity development, the family life cycle, and the adoptive family life cycle, Frasch and Brooks (2003) offer a tentative conceptual framework for understanding normative individual and family development in transracial adoptive families. The authors provide several recommendations for future theoretical frameworks. Since adoptees and their families relate to one another and change over time, theorizing about transracial adoptive families should incorporate a life span or life cycle developmental approach. Additionally, given that transracial adoptive families are multicultural, complex family systems, the framework should integrate several theories to successfully conceptualize normative development. Moreover, the conceptualization should regard the family as a whole unit as opposed to focusing on just the transracial adoptee or the adoptive parents.

Many of Frasch and Brooks' (2003) suggestions were utilized to construct the conceptual and theoretical foundation of this study. The current study utilizes family life cycle theory (Carter & McGoldrick, 1999; Duvall, 1957) to describe the transition

adoptive families must undergo to accommodate the developmental needs of their adolescent child, while laying a foundation for the developmental appropriateness of discrepancy in parent and adolescent perspectives. The adoptive family life cycle (Brodzinsky, Lang, & Smith, 1995; Hajal & Rosenberg, 1991) was used as an extension of the family life cycle to provide additional insight into the particular developmental needs of adopted adolescents and transracial adoptees (Steinberg & Hall, 2000).

Additionally, the current study utilized the family life cycle perspective and family systems theory via the Circumplex Model of Marital and Family Systems (Olson et al., 1979). The Circumplex Model supplied a theoretical foundation for predicting which families will promote the healthy development of children, determining how much discrepancy in adolescent-parent perspectives is healthy, and what family factors promote family ability to foster the developmental needs of their racial minority child. Finally, the need to explore the family as a whole system was adhered to by using the Circumplex Model which acknowledges the family as an entity in and of itself (Olson et al., 1979), in addition to seeking reports from both the adoptive parent and the adopted child.

The Family Life Cycle.

The family life cycle provides a theoretical framework for understanding individual adjustment in the context of family. In particular, the family life cycle theory specifies that individual development be viewed in relation to the normal functioning of families over time (Carter & McGoldrick, 1999). A foundational assumption is that families progress through developmental stages which are often the result of changes in family composition (i.e., through birth, death, or leaving home) or the developmental age of the oldest child (i.e., infancy or adolescence) (Duvall, 1957; Hill, 1986). Duvall (1957)

articulated eight family life cycle stages: 1. Married couples (without children), 2. Childbearing families (oldest child, birth to 30 months), 3. Families with preschool children (oldest child, 30 months to 6 years), 4. Families with school-aged children (oldest child, 6 to 13 years), 5. Families with teenagers (oldest child, 13 to 20 years), 6. Families as launching centers (first child gone to last child leaving home), 7. Middle-aged parents (empty nest to retirement), and 8. Aging family members (retirement to death of both spouses). Each developmental stage is associated with specific developmental tasks, based on normative expectations for families to meet the needs of the family as a whole and the developmental needs of individual family members.

Successful accomplishment of the developmental tasks enables the family to prepare for the next stage and foster the development of individual family members. Developmental tasks require a renegotiation of the roles members of the family play, the rules that govern the family, and boundaries in terms of the closeness and separateness among family members (Duvall, 1977). These changes enable the family to adjust to meet the needs of the family which are often based on the needs of the individual family members. Given that the family needs to adapt during life course transitions, families typically experience heightened stress as they make the necessary adjustments or struggle to do so (Hill & Rodgers, 1964). Families move through the stages even if they do not accomplish the developmental tasks at each stage. However, there may be negative implications for individual adjustment and family functioning over time if the family does not adapt successfully in each stage. Important to note, given the increasing diversity of families, Carter and McGoldrick (1999) caution against assuming that the life cycle is rigid and that all deviations are pathological.

Most relevant to the proposed study, families with teenagers must make adjustments to foster the accomplishment of the adolescent's developmental tasks. The developmental pressures on adolescents center on the need to individuate from the family in an effort to form a personal identity and gain a capacity for intimacy with others (Anderson & Sabatelli, 2002). Part of the individuation process for adolescents involves increased autonomy from the family system, including a desire for greater responsibility and power in decision making, a reevaluation of parental perspectives in an effort to forge a personal perspective, and a reliance on peer relationships (Anderson & Sabatelli, 2002; Cummings et al., 2000). Successful accomplishment of adolescent developmental tasks is marked in the developmental literature by psychosocial indicators, such as perceptions of self-worth and behavioral problems (Cummings et al., 2000). Adolescents with positive perceptions of self, a secure identity, and a lack of internalizing behaviors and externalizing behaviors are often considered developmentally healthy.

The normative developmental tasks of adolescence are complicated for adopted adolescents. In recognition of the unique developmental challenges faced by adopted children, many researchers have proposed the adoptive family life cycle (Brodzinsky et al., 1995; Hajal & Rosenberg, 1991). The adoptive family life cycle is based on the family life cycle but flushes out the impact of adoption on the navigation of developmental tasks, including those in adolescence. Identity formation for adopted adolescents is complicated by the need to integrate an understanding of the self as adopted (Grotevant et al., 2000). The developmental task is additionally complex for racial and ethnic minority children because of the need to develop a healthy ethnic-racial identity (Spencer & Markstrom-Adams, 1990; Steinberg & Hall, 2000). Therefore, the

developmental tasks of adolescence for transracial adoptees involve an integration of several pieces of personal identity (Frasch & Brooks, 2003). This may be challenging because transracially adopted adolescents must accomplish this integration in the context of lacking physical resemblance to and a shared cultural heritage with their adoptive parents (Steinberg & Hall, 2000). Since adoption is regarded as a significant and potentially stressful experience for adoptive families, the adoptive family life cycle recognizes that themes of loss and abandonment must be negotiated by adoptive families over time (Brodzinsky et al., 1995; Hajal & Rosenberg, 1991). In particular, when adoptees reach adolescence, the developmental demand to become autonomous from the adoptive family may give rise to fear of total loss of the adoptive family stemming from the loss of the birth family (Reitz & Watson, 1992; Steinberg & Hall, 2000). On the other hand, in order to reconcile and understand aspects of self not represented by their adoptive families, such as qualities from birth parents or birth culture, transracially adopted adolescents may demonstrate their separation from their adoptive families by expressing interest in or beginning a search for their birth parents (Reitz & Watson, 1992; Steinberg & Hall, 2000).

One of the major adjustments families with adolescents are required to make in order to foster adolescent bids for autonomy is increased flexibility of family boundaries. This flexibility enables the adolescent to move in and out of the family system, maintaining separation for progressively longer periods of time (Carter & McGoldrick, 1999). Allowing the developing adolescent to explore him or herself outside the family system fosters personal identity formation, while ensuring the family system is open to the adolescent's reentry into the family supplies needed support for connectedness

(Anderson & Sabatelli, 2000; Carter & McGoldrick, 1999; Cummings et al., 2000). Part of this adjustment is the redefinition of the relationship between parents and their adolescent child as less hierarchical and more symmetrical (Anderson & Sabatelli, 2000; Grotevant & Cooper, 1986), such that parents relinquish some of their power to the adolescent. While renegotiating boundaries may be difficult for all parents of adolescents, it may be especially difficult for adoptive parents to relinquish connection to their adopted adolescent, due to a fear that their child's separation from the family or interest in birth family and/or culture threatens the stability of the adoptive family system (Riley, 2006).

The family life cycle perspective suggests that optimal functioning of the adolescent is promoted when families adapt in these ways. However, when families are unable to balance separateness and togetherness, then the adolescent's individuation efforts may be blocked due to too much autonomy without family support or too much family connectedness without individuality (Carter & McGoldrick, 1999; Grotevant & Cooper, 1986). Since poorer adolescent outcomes are related to families that have not adapted to their family life cycle stage (Anderson & Sabatelli, 2000), it appears that there is a balance of separateness and togetherness the family must strike to promote adolescent development and preparation for the transition to adulthood.

In the current study, discrepancy in how adolescents and their parents view the world and their family is an indicator of the adolescent's bid for autonomy. This conceptualization has been utilized in the discrepancy literature (Feldman et al., 1989; Ohannessian et al., 1995, 2000). It is developmentally appropriate for adolescents to begin forming their own perspectives apart from those espoused by their parents. While

distinct perspectives may be an indicator of individuation, highly discrepant views of the family may be an indicator of lacking connection to the family. Grotevant and Cooper (1986) posit that there must be a balance between togetherness and separateness in family relations, such that adolescents develop most competently when they express different perspectives from their parents but do so in a supportive family environment.

Despite the current study's emphasis on differences in adolescent and parent perceptions of the family as an indicator of adolescent individuation, it is important to acknowledge factors other than adolescent bids for autonomy may contribute to discrepancy in perceptions. For example, discrepancy in perceptions may be due to a difference in generational bias, such that parents may view the family more positively than adolescents because parents have more at stake in presenting the family favorability compared to adolescents who are in the process of establishing their own identity (Noller, Seth-Smith, Bouma, & Schweitzer, 1992). Additionally, this conceptualization implies volition on the part of the adolescent to seek out autonomy by actively forging perspectives that differ from his or her parents. However, it is likely that differences in how the adolescent and parent view the family are due to more than just the adolescent desiring autonomy and acting on it.

Still, the family life cycle perspective can be useful when describing the influence of family on adolescent adjustment and the need for families to accommodate the developmental needs of their adolescent. In terms of the role of discrepant views on adolescent development, the family life cycle offers credence to the adaptive quality of adolescents forging perceptivities different from that of their parents.

Circumplex Model of Marital and Family Systems.

The family life cycle perspective is a helpful framework for describing family developmental transitions and insinuating that families need to adapt to meet the developmental needs of family members, in addition to suggesting that families are most functional in meeting the developmental demands of their members when a balance of togetherness and separateness is achieved. The Circumplex Model of Marital and Family Systems (Olson et al., 1979) adds to the theoretical framework by offering a heuristic for determining which family factors and environments are most conducive to promoting healthy adjustment. In particular, the Circumplex Model provides a vocabulary for exploring developmentally appropriate levels of family connectedness and separation, which is of relevance when studying discrepancies in the perspectives of adolescents and their parents.

Based in systems theory and the family therapy literature, the Circumplex Model of Marital and Family Systems was developed by Olson and colleagues (1979) as a method for distinguishing between healthy, well-functioning families and unhealthy, dysfunctional families utilizing a classification scheme based primarily on two family processes. The two central dimensions are family flexibility and family cohesion. Family communication is a third dimension considered a facilitating process that enables families to alter their flexibility and cohesion levels.

The first family process is family flexibility, also referred to as family adaptability. Family flexibility is defined as “the ability of a marital or family system to change its power structure, role relationships, and relationship rules in response to situational and developmental stress” (Olson et al., 1983, p. 46). Families can be

categorized into one of four flexibility levels from lowest to highest flexibility: rigid, structured, flexible, and chaotic. The two central categories of family flexibility are considered a healthy balance of maintaining order with the ability to change when necessary. The two extreme categories are regarded as dysfunctional due to either lacking the ability to adapt as would be the case for rigid families or consistently changing all the time as would be the case for chaotic families.

The second family process is family cohesion, defined as “the emotional bonding that family members have toward one another” (Olson et al, 1983, p. 46). Families can be categorized into one of four cohesion levels from lowest to highest cohesion: disengaged, separated, connected, and enmeshed. The central categories are considered viable for healthy family functioning as family members strike a balance between connectedness and separation, while the extremes are considered dysfunctional. Disengaged families have high levels of autonomy and lack connectedness among family members, while enmeshed families have involvement levels so high that family members struggle to individuate from the family system.

The Circumplex Model posits a curvilinear relationship between family functioning and levels of family adaptability and family cohesion, such that families maintain the healthiest functioning when they have balanced levels of family adaptability and family cohesion (Olson et al., 1979). Families on the extremes of the dimensions do not have as many resources to cope with stressful events, such as family life cycle transitions (Olson et al., 1983). In fact, one of the hypotheses posited by the Circumplex Model is that “balanced type couples and families will generally function more adequately across the family life cycle than unbalanced types” (Olson & Gorall, 2003, p.

521). Additionally, functioning at the extremes has negative implications for the individual and family (Olson & Gorall, 2003).

Relevant to the proposed study is the concept of balancing between the extremes of family functioning (Olson & Gorall, 2003), or more specific to this study, the balancing of adolescent-parent shared and discrepant views of the family. While the family life cycle suggests the level of discrepancy between adolescent and parent perspectives is a marker of adolescent individuation, meaning larger discrepancy is better, the Circumplex Model calls into question whether large differences in perceptions of the family is positive for adolescent development. Instead, based in the Circumplex Model, perhaps a balance of shared and discrepant views is best for successful adolescent development, signifying the adolescent's autonomy in the context of a supportive family environment (Farrell & Barnes, 1993; Grotevant & Cooper, 1986).

Families are most productive in meeting the needs of individual family members when they have a balance of cohesion and adaptability (Olson & Gorall, 2003). Perhaps this balance applies to the construct of discrepancy in perceptions of the family, such that too much discrepancy or not enough discrepancy in perceptions may not be conducive to promoting the development of adolescents. Specifically, if parents and adolescents view their family very differently from one another, then the child may be attempting to individuate from the family with little support or guidance. On the other hand, if parents and adolescents view their family too similarly, then the child may not have the space to individuate from the family and become autonomous. The current study aimed to clarify the balance of discrepancy that is conducive for transracially adopted adolescent development.

Similar to the family life cycle theory, the Circumplex Model suggests that families adapt to developmental changes. Specifically, the Circumplex Model indicates that families modify their levels of cohesion and flexibility to meet the developmental needs of family members (Olson & Gorall, 2003). While shifts in cohesion and flexibility are normative, a general maintenance of a balance of cohesion and flexibility is considered ideal for family functioning. One of the reasons for this is that “balanced families have larger behavioral repertoires and are more able to change compared to extreme families” (Olson et al., 1983, p. 66). Therefore, families with more resources are better equipped to maintain balance and to meet the needs of family members. The Circumplex Model facilitates theorizing about what resources aid in creating a family environment conducive to adaptation to meet the demands of a developing child.

When studying how the family environment facilitates or hinders the development of racial minority adolescents in transracial adoptive families, the Circumplex Model would suggest exploring family factors that influence the family’s ability to balance cohesion and flexibility. While there are factors relevant for all families with adolescents, such as family communication (Olson et al., 1983), the current study explored a factor unique to transracial adoptive families hypothesized to facilitate a supportive developmental environment: parental awareness of race. Parental awareness of race is the recognition by parents of the relevance of race, ethnicity, and culture in society, their family, and their children’s lives (Vonk, 2001). Racial awareness of white adoptive parents raising racial minority children is hypothesized to facilitate adoptee adjustment because color-conscious parents are expected to be better equipped to recognize their racial minority child’s unique developmental needs and be more likely to foster those

needs (Vonk, 2001). Since transracial adoptive parents with racial awareness have a greater range of understanding and experiences to draw upon when raising their child, they are expected to be better able to strike a balance, as indicated by the level of adolescent-parent discrepancy in perceptions of the family, that is conducive to meeting their adolescent's developmental needs, as indicated by adolescent outcomes.

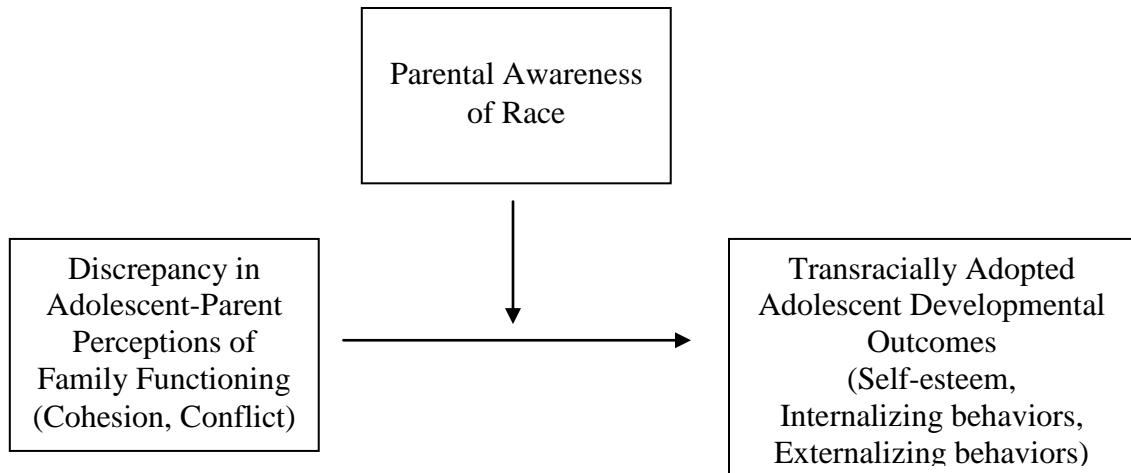
Original use of the clinically based theories, such as the Circumplex Model, in the discrepancy literature posited discrepant views of the family were maladaptive (Ohannessian et al., 2000). Specifically, when family members maintain different views of the family, the stress experienced by the family is heightened, and therefore may have a negative impact on adolescent development (Olson et al., 1983). The current study utilized a more nuanced application of the Circumplex Model to explore the possible curvilinear relationships between discrepancy in perceptions of the family and adolescent outcomes.

Summary of theoretical/conceptual framework.

In summary, the study bridged the family life cycle theory and the Circumplex Model of Marital and Family Systems in an effort to create a conceptual framework for understanding the role adolescent-parent discrepancies in perceptions of the family play in transracial adoptive families. The family life cycle theory laid a foundational understanding about the need for the family to adjust when their child becomes an adolescent to facilitate their child's accomplishment of key developmental tasks, including balancing autonomy from and connectedness to the family, and suggests maintaining discrepant views of the family is adaptive. The Circumplex Model provided a lens for exploring discrepancy in perceptions as an indicator of individuation in a

balanced family system, suggesting that too much discrepancy and too little discrepancy have negative implications for adolescent development of autonomy. Additionally, the hypotheses generated by the Circumplex Model enabled exploration of the impact of family factors, such as parental awareness of race, on adolescent outcomes and the ability of families to foster adolescent autonomy in a supportive environment. Figure 1 presents the conceptual model that guides this study. The model represented below suggests that discrepancy in adolescent-parent perceptions of family functioning will be related to transracially adopted adolescent developmental outcomes, and that this association may be moderated by parental awareness of race.

Figure 1: Conceptual Model



Review of the Literature

The relevant literature on transracial adoptive families and adolescents will be reviewed first to lay a foundation for exploring the influence of divergent views of the family on adolescent development in the context of transracial adoptive families. Specifically, this section reviews the challenges faced by transracial adoptive families, the developmental outcomes of transracially adopted adolescents, and the cultural competence of transracial adoptive parents with a specific focus on parental awareness of race. Second, the review of the literature offers an overview of the studies which examine the discrepancy in adolescent-parent perceptions of family functioning. Then, studies examining the link between discrepant adolescent-parent perceptions of the family and adolescent outcomes are reviewed, and the difference between discrepancy in perceptions of family and individual reporters of the family is called into question. The review of the literature concludes with an overview of the developmental outcomes of interest in the current study, namely adolescent self-esteem, internalizing behaviors, and externalizing behaviors.

Transracial adoption.

This section of the literature review builds the case for exploring discrepancies in adolescent-parent views of the family in transracial adoptive families. First, the unique challenges faced by transracially adopted adolescents and their parents are detailed to ultimately illustrate differences in parental actions and the needs of their racial minority children. Second, the outcome literature on adolescent transracial adoptees will be reviewed to lay a foundation for examining factors influencing adoptee outcomes. Third, a review of the influence of family factors unique to transracially adoptive families on

adolescent outcomes, in particular the cultural competence of Caucasian adoptive parents, will follow. Drawing upon Vonk's (2001) conceptualization of transracial adoptive parent cultural competence, this section will emphasize the foundational importance of parental awareness of race to foster a family environment conducive to meeting the needs of their developing racial minority child, as evidenced by positive adolescent outcomes. Based on these literatures, this section then proposes that parents lacking an awareness of race create a family environment ripe for parents and adolescents to view the family differently, which has negative implications for adolescent outcomes.

Unique challenges faced by transracial adoptive families.

Exploring adolescent-parent discrepancies of perceptions of family functioning in transracial adoptive families is particularly compelling. Transracial adoption is a unique family context due to the biological and racial identity differences within the family. As detailed previously, the developmental tasks of adolescence are complicated for adoptees, in particular for those who are of a different race than their adoptive parents. Not only do transracial adoptees integrate the cultural heritage of their birth family and adoptive family as they form their identity (Riley, 2006), they must do so in the context of visible differences in physical characteristics and skin color from their adoptive parents (Grotevant et al., 2000). Findings from empirical investigations of adoptee dissimilarity from the adoptive family, as reviewed by Hollingsworth (1998), suggest that when adoptees perceive themselves as physically dissimilar from their adoptive family they experience additional challenges with identity development and are more likely to search for their birth parents as a means to attain connections to those who may be more physically similar.

As transracial adoptees reach adolescence, their accomplishment of healthy identity formation and balancing separateness and togetherness with the family depends largely on the attitudes and actions of their Caucasian parents, specifically their racial awareness, their preparation of their child for discrimination, and their actions to connect their child to their birth culture (Vonk, 2001). The competence of Caucasian parents to meet the developmental needs of their racial minority child may be inadequate due to the parents' privileged status in the racial majority, lack of access to the cultural community of their child, and limited understanding of the meaning of race in society and for their child.

Although no known studies have explored adolescent-parent divergent views of the family in transracial adoptive families, retrospective accounts of transracially adopted adults suggest a difference between the actions of their racial majority parents and their actual needs as racial minority children (Patton, 2000; Samuels, 2009). From in-depth interviews with 25 black-white multiracial adults adopted by white parents, Samuels (2009) offers insight into their experiences of being raised by white parents. In their reflections of their childhood, transracially adopted adults expanded on their needs to be exposed to their racial community and to be prepared to proactively handle racial discrimination. Instead, many adoptees discussed their white parents exposing them more often to white cultural orientations and offering little preparation for dealing with experiences of racism. Another qualitative study of 20 transracially adopted children (aged 8 to 14 years old) and their parents intended to explore the unique needs of transracial adoptive families offers additional support of this disconnect (Vidal de Haymes & Simon, 2003). While many children acknowledged parental attempts to foster

their racial identity and connect them to their birth culture, others described a family environment which minimized or even ignored race and experiences of racial discrimination. Given the link between racial socialization and transracially adopted adolescent development, some adoptive parents are fostering a family environment that disregards the needs of their racial minority child.

The disconnect between the needs of the child and the actions of their parents may be attributed to white parents colorblindness suggesting that transracially adopted youth and their white parents may view the world and the racial differences within their family very differently. In order to further the understanding of these differing perspectives within the family, this study aimed to explore how transracially adopted adolescents and their parents view their family functioning, assess the amount of discrepancy in their perceptions, and examine the influence of perceptual discrepancies on adolescent developmental outcomes.

Developmental outcomes of transracially adopted adolescents.

A brief review of the outcome literature on adolescent transracial adoptees suggests that although many transracially adopted adolescents adjust well and meet the developmental demands of adolescence, as indicated by positive outcomes, some transracially adopted adolescents exhibit negative outcomes. In a review of the literature of studies published from 1990 to 2003 and pre-1990 seminal studies, Lee (2003b) posited that approximately 70 to 80 percent of racial minority children raised by white adoptive parents have infrequent serious behavior and emotional problems. In fact, the rate of serious behavior and emotional problems for transracial adoptees tends to be similar to the rates for same-race adoptees and non-adoptees (Lee, 2003b). Although

these findings may be reassuring, they unfortunately imply that 20 to 30 percent of racial minority children raised by white parents do struggle with serious behavioral and emotional problems.

More recent meta-analyses and studies of both domestic and international adoptions offer additional support that racial minority adolescents adopted into white families adjust equally as well as same-race adoptees and non-adoptees. A meta-analysis of four studies published before 1990 and 14 studies published after 1990 involving 2,198 adoptees suggests that transracial and same-race adoptees maintain similar levels of self-esteem (Juffer & van IJzendoorn, 2007). Results from another meta-analysis of 10 studies comparing 2,317 internationally adopted adolescents and 14,345 non-adopted adolescents revealed that although internationally adopted adolescents exhibit more overall behavioral problems than non-adopted adolescents, the difference was observed with externalizing behaviors and not internalizing behaviors (Bimmel, Juffer, van IJzendoorn, & Bakermans-Kranenburg, 2003).

In a secondary data analysis of the National Longitudinal Study of Adolescent Health, Burrow and Finley (2004) compared same-race adoptees (n=424) and transracial adoptees (n=32) on academic, familial, psychological, and health outcomes. Transracial and same-race adolescent adoptees (age 12 to 19 years) tended to have similar levels of self-esteem, general health, externalizing behaviors (e.g., delinquency), and internalizing behaviors (e.g., depression). However, some differences in adolescent adjustment emerged. For example, transracially adopted adolescents tended to have higher academic achievement and higher academic expectations compared to same-race adoptees. In addition, transracially adopted adolescents tended to have more distant relationships with

their fathers and expressed more psychosomatic symptoms compared to same-race adoptees. While this study comprehensively explored different domains of adolescent adjustment, the small number of transracially adopted adolescents included in the study was a limitation.

Another study compared transracial adoptees, Caucasian adoptees, and their non-adopted siblings during late adolescence/early adulthood on outcome domains such as school problems, behavior problems, general health, and delinquency (Weinberg et al., 2004). Results based on parental reports revealed no significant differences between transracial adoptees and same-race adoptees on each domain. Although parents reported Black adoptees to be 4 times more likely to have behavior problems than Caucasian adoptees, this association disappeared once age of placement was included as a covariate. When comparing transracial adoptees and non-adopted siblings, parents reported transracially adopted adolescents to be 3.6 times more likely to have school problems, 3.25 times more likely to have behavior problems, 2.82 times more likely to have general health problems, and 11.38 times more likely to have delinquency problems than their non-adopted siblings. While these differences are striking, the authors caution against assuming transracial adoptees are maladjusted since most transracially adopted adolescents had positive psychosocial adjustment according to parental reports across the four domains.

Researchers have suggested that other individual factors related to the adoption and the adoptee may be more critical for understanding adoptees' developmental outcomes than their racial/ethnic similarity or difference from their adopted parents. Such factors include age at adoption, experiences prior to adoption including

institutionalization and/or abuse, gender of the child, and adoptive family functioning (Juffer & van IJzendoorn, 2007; Lee, 2003b; Weinberg et al., 2004).

The transracial adoption family context: Cultural competence of transracial adoptive parents.

The adoptive family environment has been implicated as contributing to the developmental outcomes of transracially adopted adolescents. Adoptive family relationships, in particular positive parent-child relationship quality, is associated with a decreased likelihood of negative outcomes for transracially adopted youth even when controlling for demographic variables and pre-adoption abuse/neglect (Whitten & Weaver, 2010). Prior findings on discrepant views in families suggest that the level of perceptual discrepancy between parents and their adolescent is another aspect of the family environment that influences adolescent development (Carlson et al., 1991; Ohannessian et al., 1995, 2000). Therefore, the current study explores the influence of discrepancy in adolescent-parent perceptions of the family on transracially adopted adolescents' developmental outcomes.

However, to understand the association between discrepant family views and adolescent outcomes in the context of transracial adoption, it is imperative to explore factors unique to transracial adoptive families that may influence child outcomes and the level of difference in adolescent-parent perceptions of the family. The most strongly implicated family factor influencing transracially adopted adolescents' adjustment is their white parents' cultural competence (Samuels, 2009; Vonk, 2001; Vonk & Massatti, 2008).

Vonk (2001) has conceptualized the cultural competence of transracial adoptive parents as the attitudes, skills, and knowledge parents possess that enable them to meet the unique needs of their racial minority child. In particular, cultural competence has three components, including racial awareness, survival skills, and multicultural family planning. Racial awareness refers to the parents' recognition of the role of race, ethnicity, and culture in their lives and in the lives of others, in particular their children. Vonk (2001) proposes that if parents are racially aware they are more likely to recognize the importance of the other two components and to complete them. Multicultural planning refers to parents actively connecting their children to the community of their child's birth culture, while survival skills refers to parents preparing their children for coping with discrimination.

Empirical support for the conceptualization of cultural competence proposed by Vonk (2001) and the impact of parental cultural competence on transracially adopted adolescent outcomes has begun to develop. In particular, much of the literature has focused on the role of multicultural family planning, including cultural exposure and involvement, on Korean adoptee development (Huh & Reid, 2000; Lee & Quintana, 2005; Yoon, 2001) and Asian adoptee development (Mohanty, Keokse, & Sales, 2006).

In one study, Yoon (2000) explored the link between adolescent perceptions of their parents' support of their ethnic background/ethnic socialization and adolescent ethnic pride and psychological adjustment, including personal self-esteem, distress, and positive well-being in 241 Korean-born transracially adopted adolescents (12 to 19 years old). Adolescents who perceived their parents to be supportive of their ethnicity and ethnic socialization tended to maintain a more positive perspective about their ethnicity.

Additionally, a positive parent-child relationship, in which parents supported their adolescent child's ethnic socialization and identity development, predicted positive adolescent adjustment.

In another study offering empirical support for the link between the multicultural planning component of cultural competence and healthy development of transracial adoptees, Lee and Quintana (2005) explored the benefits of cultural exposure for Korean transracial adoptees with 50 children (mean age = 12.26, $SD=2.35$). Children reporting more cultural exposure had higher levels of perspective-taking ability, and the relationship was stronger for younger children compared to older children. In summary, the cultural competence of white parents, specifically multicultural family planning, contributed to the healthy development of transracial adoptees' understanding of themselves as Korean.

In a study of 82 adult Asian transracial adoptees (mean age = 20.03, $SD = 5.96$), adoptee perceptions of their parents' support for cultural socialization was related to higher adoptee self-esteem, a stronger sense of belongingness to the adoptive family, and lower feelings of marginality in society (Mohanty et al., 2006). Additionally, the link between cultural socialization and adoptee self-esteem was mediated by belongingness and marginality, such that exposure to Asian culture enhanced children's belongingness to their family and to the larger society which enhanced adoptees' self-esteem. Although this web-based survey of Asian adoptees offers additional support for the link between parental cultural competence and adoptee outcomes, the sample included adults as opposed to adolescents, and therefore, may not be generalizable to the adolescent age group.

Although these studies provide evidence for the positive relationship between the cultural competence of transracial adoptive parents and their racial minority child's wellbeing, a major limitation of the research to date is a primary focus on Asian adoptee wellbeing, restricting the ability to generalize these findings to transracial adoptees of other races. Additionally, given the emphasis on parental racial awareness as the foundational component of transracial adoptive parent cultural competence (Vonk, 2001); perhaps the greatest limitation of the literature is a deficient focus on the influence of parental racial awareness on child outcomes and the family environment. The literature has maintained a primary focus on adoptee perceptions of their parents' racial socialization practices and facilitation of cultural exposure, which speaks to the multicultural family planning component of parental cultural competence, but does not directly address the role of parental awareness of race. While multicultural planning may be viewed as behavioral manifestations of parental racial awareness, the parents' actual perceptions regarding race have not been adequately studied. The current study attempted to begin to fill the void in the current literature by examining parental awareness of race as a contributor to transracial adopted adolescent outcomes and the relationship between the amount of discrepancy in adolescent-parent perceptions of the family and adolescent outcomes.

Transracial adoptive parents' awareness of race.

A high percentage of transracially adoptive parents acknowledge the importance of their role in helping their child develop connection to and appreciation for their birth culture, believing this will facilitate positive self-esteem and healthy identity development (Scroggs & Heitfield, 2001). However, research identifying the needs of

transracial adoptive families utilizing interviews with 20 transracially adopted youth (8 to 14 years old and primarily African American or biracial of African and white parentage) and their adoptive parents revealed that while many parents were racially aware, others struggled to identify racism, minimized experiences of racism, or avoided discussions about race with their child (Vidal de Haymes & Simon, 2003). This is disconcerting, given that parental racial awareness has been implicated in the successful development of transracial adoptees (Kallgren & Caudill, 1993; Vonk, 2001), although empirical support for this link is limited.

In their evaluation of services for transracially adoptive families, Kallgren and Caudill (1993) indicated that a racially dissonant context in which the family lacks acknowledgement and acceptance of the child's race, inhibits the healthy development of racial identity and self-esteem. In a more recent study of Caucasian adoptive parents with Chinese children (mean age = 7 years, age range 5 to 13 years), parents who believed it was important for their child to participate in Chinese cultural events and learn Chinese history and language were more likely to report their child to have high Chinese cultural competence 5 years later (Thomas & Tessler, 2007). Parental reports of their understanding of race and recognition of the importance of their racial minority child to engage in their birth culture are indicators of the level of awareness of race.

Additional research on awareness of race is merited because it has been argued that when parents do not acknowledge or accept the racial differences within the family they are creating a color-blind family environment, which fails to provide adequate support for the healthy development of their adopted child (Kallgren & Caudill, 1993). Consequently, the current study explored the influence of parental awareness of race on

adolescent transracial adoptee developmental outcomes, specifically self-esteem, internalizing behaviors, and externalizing behaviors.

Parental racial awareness as a moderator of the relationship between discrepancy in adolescent-parent perceptions of family functioning and transracially adopted adolescent outcomes.

The literature reviewed thus far suggests that transracially adopted adolescent development can be influenced by discrepancies in adolescent-parent perceptions of the family (Paikoff, 1991) and parental cultural competence (Vonk, 2001). When seeking to understand how the family environment influences adolescent outcomes in transracial adoptive families, the intersection of these significant family factors is of interest. When white parents lack racial awareness in the context of too much discrepancy in perceptions of the family, the negative influence of discrepancy on adolescent outcomes may be worse. More specifically, when the adoptive family has not struck balanced viewpoints deemed to be optimal for adolescent development, parental colorblindness may intensify the influence of discrepancy in perceptions on adolescent outcomes. On the other hand, parents who appreciate the significance of racial differences are potentially creating a family environment conducive to striking a balance of compatible and disparate views of the family, thereby promoting the healthy development of their adolescent. It may be that understanding the challenges of navigating minority status in our society helps parents to recognize that perceptions of situations are contextually influenced and therefore vary among people. Perhaps a clearer understanding of the link between adolescent-parent discrepancy in perceptions of the family and adolescent outcomes is necessary before comprehending the role of parental awareness of race in this relationship. Therefore, after

examining the link between adolescent-parent discrepancy in perceptions of the family and adolescent outcomes, the current study explored parental awareness of race as a moderator of this relationship.

Discrepancy in adolescent-parent perceptions of family functioning.

This section of the literature review provides an overview of the studies examining how parents and their teenagers view their family, in addition to whether family members maintain shared or discrepant views. Research examining perceptions of family functioning has indicated that adolescents and parents often maintain different views of the family. Both observational and self-report methods have yielded similar results. The findings from these studies are primarily based on correlations or mean differences between adolescent and parent ratings of the family.

In general, adolescents tend to view the family more negatively than their parents across a range of family functioning domains, including communication, cohesion, adaptability, and conflict, among others (Feldman et al., 1989; Ohannessian et al., 1995, 2000). Many of the studies refer to developmental theory to explain why adolescents may maintain a distinct and pessimistic mindset in comparison to their parents (Ohannessian et al., 1995, 2000). These studies reference the adolescent developmental task to individuate from the family, and therefore develop views separate from their parents. Other studies incorporate the generational stake hypothesis, suggesting that parents have more invested in the family, and therefore view the family more positively than the adolescent child, who seeks to separate from the family, and therefore has less invested in representing the family positively (Callan & Noller, 1986; Noller et al., 1992).

In their seminal study on the normative family processes associated with particular life cycle stages, Olson and colleagues (1983) explored agreement and differences in parent and adolescent views of the family in 261 families. Adolescents, ranging in age from 13 to 18 years, and both their parents completed a battery of questionnaires measuring aspects of family functioning, such as family cohesion, family adaptability, parent-adolescent communication, and family coping. Correlations between adolescent views and each parents' views revealed a striking lack of agreement. In particular, correlation coefficients for father-adolescent agreement ranged from .05 on one of the family coping subscales (mobilizing to acquire/accept help) to .46 on family cohesion. Correlation coefficients for mother-adolescent agreement ranged from .12 on one of the family coping subscales (mobilizing to acquire/accept help) to .39 on family cohesion. Additionally, when exploring parent and adolescent views of communication, adolescents perceived less openness and more problematic parent-adolescent communication compared to their parents.

Similarly, the findings from an observational study of 54 early adolescents (12 years old) and their parents revealed that when families watched videotaped interactions of their family and rated family communication, adolescents perceived more negative communication than parents (Callan & Noller, 1986). Specifically, adolescents rated their parents as more anxious, less involved, and less strong than their parents rated themselves. However, adolescents and their parents did not differ on their perceptions of family members' friendliness, an indicator of family cohesion. In a follow-up study, Noller and Callan (1988) compared the ratings of family interactions by family members within the family and people outside the family. The adolescent, mother, and father rated

their own family interactions and were referred to as the insider family. In addition, two types of outside reporters rated the insider family's interactions, including the adolescent, mother, and father of another family, referred to as the outsider family, and a trained observer. Interestingly, when comparing ratings of the insider family and outsider family, the ratings by the outsider family tended to be more negative than the ratings within the family (Noller & Callan, 1988). These more negative ratings, however, were similar to the insider family adolescent ratings. Noller and Callan (1988) also compared insider family ratings to trained observer ratings, finding that the two reporters espoused similar views of family communication.

In addition to viewing family communication more negatively (Callan & Noller, 1986; Olson et al., 1983), adolescents tend to view the family environment as less cohesive (Feldman et al., 1989; Noller & Callan, 1986; Ohannessian et al., 1995; Stuart & Jose, 2012), less adaptable (Noller & Callan, 1986) and less well adjusted (Ohannessian et al., 1995) than their parents. For example, an observational study of 55 sixth-grade boys and both their parents, utilizing the Family Systems Test (FAST), a spatial test created by Gehring and Feldman (1988) to reflect each family member's perceptions of power and cohesion in the family, demonstrated that adolescents tend to view the family more negatively than parents. In addition to completing the FAST individually, the family was requested to reach a consensus on their description of the family utilizing the FAST. Sons indicated less cohesion in the father/mother dyad, the father/son dyad, and the mother/son dyad compared to fathers, mothers, and the family consensus. Additionally, sons indicated larger power differentials between parent/child dyads than both parents. Specifically, although both parents and sons perceived the

parents to have more power than the child, sons viewed this difference to be larger than parents. Generally, mothers and fathers were similar in their perceptions of cohesion and power, while sons tended to maintain more negative views of the family.

In another study of 281 families with adolescents ranging in age from 13 to 17 years, adolescents perceived less cohesion and less adaptability compared to their parents (Noller & Callan, 1986). Although adolescents perceived the family as less cohesive than their parents, their ratings of cohesion were generally high, indicating that adolescents did not perceive a lack of cohesion but rather a different level of cohesion than their parents. In this same study, perceptual discrepancy between adolescents and parents was examined with regard to the age of the adolescent (Noller & Callan, 1986). While in all age groups (13-, 14-, 15-, 16-, and 17-year olds), adolescents perceived less adaptability than their parents, adolescent boys tended to rate adaptability lower than adolescent girls in the 15-year old age group. For all age groups (14-, 15-, 16-, and 17-year olds), adolescents viewed the family as less cohesive than their parents, with the exception of the 13-year old age group which rated family cohesion similarly to their parents. Although mean scores of perceptions of cohesion and adaptability for adolescents and parents were statistically significantly different, the authors caution that the differences were generally small.

Similar to the age differences found in Noller and Callan (1986), a study exploring the differences in perceptions of children in early adolescence (12-13 years old) and late adolescence (17-18 years old) found that younger adolescents perceived less conflict in the family compared to their parents, while older adolescents perceived more conflict compared to their parents (Smith & Forehand, 1986). Contrary to other findings,

this study failed to find a significant difference between parent and early adolescent daughter (10-14 years old) perceptions of family conflict. The authors speculate that sampling limitations (i.e., early adolescents from middle class families without a history of seeking help for parent-adolescent conflict) and the study's focus on one domain of family functioning contributed to this unexpected finding (Smith & Forehand, 1986).

The literature on adolescent-parent perceptual discrepancy reviewed thus far has sampled "normal" families, also referred to as non-clinical families. Noller and colleagues (1992) offer insight into examining perceptions of family functioning held by adolescents and mothers in clinical and non-clinical samples. Thirty adolescents and their mothers receiving services at a child guidance clinic in Australia were included in the clinical sample. Thirty adolescents and their mothers who lacked a history of clinical referral were matched to the clinical sample based on age, sex, family structure, and socio-economic status. In the clinical sample, no significant differences between mothers' and adolescents' perceptions of intimacy, conflict, and parenting style were detected. In the non-clinical sample, adolescents viewed the family as less intimate, less engaging, and more in conflict than their mothers. Additionally, there was a trend toward adolescents in the non-clinical sample viewing their family as less democratic than their mothers.

In summary, the literature on discrepancies in adolescent-parent perceptions of family functioning captures the adolescent tendency to view their family differently and more negatively than parents. As the literature has developed, however, some researchers have begun to speculate that adolescents and parents may agree on certain domains of family functioning, while disagreeing on other domains of family functioning (Carlson et

al., 1991). This may call into question whether or not shared views represent the family's togetherness as a unit and discrepant views represent the family's disconnection as adolescents are balancing connection and separation from their families. In a study of 58 early adolescents (10-13 years old) and their parents, discrepancy in perceptions depended on the domain of family functioning being assessed (Carlson et al., 1991). For example, adolescents maintained shared views with parents on religious event participation, achievement orientation, and family system's maintenance functions, such as organization and control. However, adolescents perceived less family cohesion, expressiveness, independence, and involvement in cultural activities, and more involvement in recreational activities than parents perceived. In addition to exploring shared and disparate perceptions within families, researchers began to inquire about the influence of discrepancies in adolescent-parent perceptions of the family on adolescent outcomes (Paikoff, 1991).

Discrepancy in adolescent-parent perceptions of family functioning and adolescent outcomes.

This section of the literature review first addresses the methodological issue of defining divergent perceptions of the family, detailing the primary operational definitions of discrepancy in adolescent-parent perceptions of family functioning in the literature. Second, the literature reviewed extends the discussion of discrepant perceptions by exploring their influence on adolescent outcomes, while offering additional support for some of the research detailed in the prior section. Then, this section highlights a potential limitation of the discrepancy literature, suggesting the need to explore if discrepancy in perceptions of the family uniquely adds to the understanding of developmental outcomes

above and beyond individual reports of family functioning. Finally, a brief discussion of adolescent outcomes of interest in the current study is provided.

Measurement of discrepant views of the family.

One of the major methodological issues when studying discrepant views of the family is defining divergence of perceptions (Carlton-Ford, Paikoff, & Brooks-Gunn, 1991). Within the discrepancy literature, two primary techniques for measuring discrepancy in perceptions of the family have been utilized. In the first approach, researchers create a simple discrepancy score by subtracting one family member's rating of the family from another family member's rating of the family (Ohannessian et al., 1995). Utilizing simple discrepancy scores enables researchers to make conclusions about the direction of the discrepancy, specifically whether the adolescent views more or less of the family functioning variable of interest than the parent. In the second approach, researchers create an absolute-value discrepancy score by taking the absolute value of the simple discrepancy score (Carlson et al., 1991; Ohannessian et al., 2000). Absolute-value discrepancy scores enable researchers to quantify the amount of discrepancy in adolescent and parent perceptions, but do not provide insight into the direction of the discrepancy. Once the simple discrepancy or absolute-value discrepancy scores have been created, families can be categorized based on their level of discrepancy by determining cutoff points for families with lower, moderate, and higher discrepancy in perceptions (Carlton-Ford et al., 1991; Holmbeck & O'Donnell, 1991).

In their review of ways to define discrepancy in adolescent-parent perceptions of the family, Carlton-Ford and colleagues (1991) assert that no clear evidence exists to suggest that one operational definition is better than another. Instead, the definition must

be guided by the research questions and hypotheses. If the direction of the discrepancy in perceptions is important, then simple discrepancy scores should be utilized. However, if the amount of discrepancy of perceptions, and not the direction of the discrepancy, is of most interest to the study, then absolute-value discrepancy scores are typically utilized.

Each operational definition enables different types of conclusions regarding the direction or amount of the discrepancy. Therefore, the findings described in the next section of the literature review will reflect the operational definition utilized in the study under review. More specifically, the direction of the discrepancy will be reported when studies utilize the simple discrepancy score definition of discrepancy, while the amount of discrepancy but not the direction will be reported when studies utilize the absolute-value discrepancy score.

The influence of discrepancy in adolescent-parent perceptions of the family on adolescent outcomes.

Discrepancies in adolescent-parent perceptions of the family have typically been viewed as maladaptive to individual and family development. In particular, higher levels of discrepancy in perceptions of the family are related to higher levels of family stress, and they tend to escalate one another, making it difficult for the family to meet the developmental needs of the adolescent (Olson et al., 1983). In support of this perspective, research has linked discrepancies in adolescent-parent perceptions of the family to poorer adolescent outcomes (Carlson et al., 1991; Ohannessian et al., 1995, 2000; Stuart & Jose, 2012). However, some studies have also linked perceptual discrepancy to positive adolescent outcomes (Holmbeck & O'Donnell, 1991).

Two studies have assessed self-competence as an adolescent outcome related to perceptual discrepancy within the family (Carlson et al., 1991; Ohannessian et al., 2000). In both studies, adolescent perceptions of their own competence across multiple domains, such as academic competence, social acceptance, physical appearance, athletic competence, conduct behavior, and global self-worth, were assessed as the developmental outcomes.

The first study, described in the previous section, by Carlson and colleagues (1991) found that larger discrepancies between daughter and father perceptions of family cohesion were related to lower self-perceived competence for daughters, specifically in the domains of social acceptance and scholastic ability. In addition, larger discrepancies between daughter and mother perceptions of family cohesion were related to daughters' lower self-perceived social acceptance (Carlson et al., 1991). However, the reverse was found for sons, such that more discrepancy between sons' and their parents' perceptions of family cohesion was related to higher self-perceived competence for sons on the domains of scholastic ability, physical appearance, conduct behavior, and global self-esteem (Carlson et al., 1991). In terms of family conflict, incongruence in mother-adolescent and father-adolescent perceptions of conflict were associated with lower perceived self-competence for both sons and daughters. The authors note that since most families scored high on cohesion and low on conflict compared to the norms of the *Family Environment Scale* (FES; Moos & Moos, 1994), the discrepancies between adolescent-parent perceptions may not constitute huge discrepancies. Therefore, the results suggest that even small discrepancies in views may be related to adolescent outcomes, such as self-competence.

A second study of 74 sixth and seventh grade adolescents (mean age 12.05) and their mothers and fathers revealed a similar association between discrepancies in adolescent-parent perceptions of family functioning and daughters' and sons' perceptions of their own competence, although self-competence tended to be more strongly related to divergent views of the family for adolescent girls compared to adolescent boys (Ohannessian et al., 2000). Daughters in families with more divergent views of family cohesion and family adjustment tended to perceive themselves as less competent compared to daughters in families with similar views. However a relationship between discrepancy in perceptions of family adaptability and self-competence for daughters was not supported. Although not as many subscales of self-competence were related to discrepancies in perceptions of family functioning for sons, boys were less likely to perceive themselves as physically attractive when they had divergent views from their mothers and fathers on family cohesion and family adaptability, and were less likely to have positive global self-worth when they maintained views of family cohesion that were incongruent from their mothers.

The longitudinal design of the study enabled exploration of the predictive relationship between discrepancy in adolescent-parent perceptions of the family and adolescent self-competence, in addition to their bidirectional influence (Ohannessian et al., 2000). Results revealed that discrepancies in adolescent-parent perceptions of family functioning were related to adolescent self-competence and predicted adolescent self-competence six months later. Some results suggest discrepancy in perceptions is maladaptive for adolescent development. For example, larger discrepancies between mother-adolescent perceptions of family adaptability predicted lower physical

attractiveness for sons and lower athletic competence for daughters. Additionally, when fathers and daughters maintained different views of family adjustment, daughters reported lower global self-worth. However, the results also suggest discrepancy in perceptions may be adaptive for adolescent development. For example, daughters reported greater academic competence when they maintained divergent views of family adaptability from their parents. In addition, larger discrepancies in father-son perceptions of family adjustment predicted higher social competence for sons.

In addition to exploring self-competence across multiple domains of functioning as an adolescent outcome impacted by discrepancies in adolescent-parent perceptions of family functioning, other studies have looked at internalizing and externalizing symptoms. For example, a longitudinal study by Ohannessian and colleagues (1995) explored the relationship between discrepancies in adolescent-parent perceptions of the family and adolescent emotional adjustment, including trait anxiety, state anxiety, and depressive symptoms, with 74 sixth and seventh grade adolescents (mean age 12.05) and their mothers and fathers. The relationship between discrepancy and emotional adjustment tended to be more evident for adolescent girls than boys. Both correlation and regression analyses were conducted to explore the link between discrepancy in perceptions and adolescent outcomes. Based on the correlations, discrepant views of family adjustment between daughters and mothers was associated with daughters' depressive symptoms and anxiety, while more discrepant views of family adjustment, family cohesion, and family adaptability between adolescent daughters and fathers was associated with daughters' depressive symptoms and anxiety. In all of these correlations, negative developmental outcomes were associated with discrepancy in which daughters

viewed the family functioning variable of interest more negatively than parents. For adolescent boys, when they viewed their family as less cohesive than their mothers, they were more likely to be anxious. The regression analysis offers support for the predictive relationship between discrepancies in perceptions and adolescent outcomes. Specifically, more discrepant views of family adjustment between daughters and mothers predicted more depressive symptoms and anxiety for daughters, while more discrepant views of family adjustment between daughters and fathers predicted more anxiety for daughters. Additionally, larger discrepancies in sons and mothers perceptions of family cohesion predicted higher levels of anxiety for sons. The authors suggest that the gender difference may be due to the choice to explore internalizing behaviors which tend to manifest in girls, instead of externalizing behaviors which tend to manifest more often in boys.

Adolescent internalizing symptoms, externalizing symptoms, and self-concept were explored as adolescent outcomes in a longitudinal study on family decision making and autonomy by Holmbeck and O'Donnell (1991). For the 86 adolescents (10-18 years old) and their mothers, no evidence was found to support the hypothesized relationship between differences in perceptions of decision making or autonomy levels and adolescent externalizing symptoms or self-concept. However, discrepancy in views of decision making was related to higher mother reported conflict, increases in adolescent reported conflict, and decreases in mother reported cohesion when explored longitudinally. Additionally, when mothers and adolescents agreed that the adolescent was in charge of decision making, mothers reported less attachment to the child. Conversely, this study offers some support for the adaptive function of discrepancies in perceptions of the family by demonstrating that agreement in perceptions with mothers is associated with

negative outcomes for adolescents. For example, when mothers and adolescents agreed that the parent was in charge of decision making as opposed to the adolescent, mothers reported higher levels of adolescent internalizing symptoms.

A recent longitudinal study examined whether discrepant adolescent-parent perceptions of the family predicted general adolescent wellbeing over time in 972 adolescent-parent dyads (Stuart & Jose, 2012). Generally, adolescents tended to view the family more negatively than parents along positive family dynamics (i.e., family cohesion, autonomy, identity, and mutual activities). However, the difference in perceptions of family conflict was marginal. Additionally, while discrepancy in perceptions of positive family dynamics were correlated with higher levels of adolescent wellbeing, larger discrepancy in adolescent-parent perceptions of family conflict was related to poorer adolescent wellbeing. To explore the longitudinal relationship between discrepant perceptions and adolescent wellbeing, a latent discrepancy variable was created based on the discrepancy scores of all five family dynamics explored. Larger discrepancies in adolescent-parent views predicted poorer adolescent wellbeing one year later, lending support for discrepant perceptions being maladaptive. A bidirectional relationship between discrepant views and adolescent wellbeing was supported because in addition to finding that discrepant views of the family contributed to adolescent wellbeing over time, adolescents with higher levels of wellbeing were less likely to hold discrepant views of their family over time.

Although most of the findings from studies on the influence of discrepancy in adolescent-parent perceptions of the family on adolescent development indicate that poorer outcomes are associated with and predicted by levels of higher perceptual

discrepancy within the family, there are mixed results. The findings support that discrepancy in perceptions of the family may have negative implications for adolescent development, but that too much agreement in perceptions of the family may also have negative implications for adolescent development. Perhaps a balance between discrepant and shared views, a balance of separateness and togetherness, is best for promoting adolescent development. Therefore, this study explored a curvilinear relationship between discrepancy in adolescent-parent perceptions of the family (i.e., family cohesion and family conflict) and adolescent outcomes (i.e., self-esteem, internalizing behaviors, and externalizing behaviors).

While a curvilinear relationship was explored, the linear association between discrepancy in adolescent-parent perceptions of the family and adolescent outcomes was also examined. One reason for exploring a linear relationship is congruence with the prior literature on discrepant views of the family which tested for a linear relationship. Additionally, prior examinations of the Circumplex model, suggesting a curvilinear relationship between family factors and child outcomes, often do not offer support for the hypothesized curvilinear relationship, and instead reveal a linear relationship (Anderson & Gavazzi, 1990; Barnes & Olson, 1985; Farrell & Barnes, 1993; Olson et al., 1983). Finally, the linear relationships between perceptual discrepancy and adolescent outcomes were examined, because developmental theory would suggest it is developmentally appropriate for adolescents to view their family differently, and as an indicator of adolescent individuation, would be related to better outcomes.

Critique of the existing literature on discrepancy in perceptions of family functioning and adolescent outcomes.

Concerns may arise when considering the conceptualization of discrepancy in adolescent-parent perceptions of the family as a unique and substantive construct when seeking to understand adolescent development. In the current study, discrepancy in adolescent-parent perceptions of family functioning is conceptualized by the Circumplex Model to function like the dimensions of family cohesion and family flexibility. Specifically, discrepancy in perceptions is viewed as an adolescent's bid for autonomy from the family in the context of a supportive family, in which a balance of discrepancy is optimal for adolescent development. However, since individual parent and adolescent reports of family cohesion and family conflict were collected in the current study, the value of utilizing discrepancy in perceptions of family cohesion and family conflict may be questioned. If the same phenomenon is captured by individual reports and discrepant views, then why not utilize individual reports of family functioning as opposed to discrepancy scores?

Largely, the discrepancy literature has not addressed whether discrepancy in adolescent-parent perceptions of family functioning is related to adolescent outcomes above and beyond parent and/or adolescent individual reports of family functioning. An exception is the study conducted by Stuart and Jose (2012), in which the independent effects of individual reports of family dimensions were considered in addition to examining the influence of discrepancy in adolescent-parent perceptions of family dimensions on adolescent wellbeing. The results suggest discrepancies are uniquely

predictive of adolescent wellbeing, lending support for the value of discrepancy perceptions as a unique construct.

It is of methodological and theoretical importance to clarify if discrepancy in perceptions of family functioning is the same phenomenon as captured by individual reports of family functioning. Therefore, the current study sought to tease out the overlap and distinctiveness of individual reports of family functioning and discrepancy in perceptions of family functioning. Specifically, the possible confounding relationship between individual reports of family cohesion and family conflict and discrepancy in adolescent-parent perceptions of these dimensions of family functioning was explored. If individual reports and perceptual discrepancy were found to be related, then individual reports of family functioning would serve as a control variable in order to explore the unique contribution of discrepancy in perceptions above and beyond individual reports.

Adolescent developmental outcomes.

Healthy adolescent development has been conceptualized as the successful accomplishment of development tasks (Cummings et al., 2000). In the literature on adolescent development, successful navigation of the teenage years is often indicated by the presence or absence of certain patterns of behavior (Cummings et al., 2000). Most commonly, the patterns of behaviors have been divided into two broad dimensions, namely internalizing behaviors and externalizing behaviors (Achenbach, 1991; Achenbach & Rescorla, 2001; Brack, Brack, & Orr, 1994). Internalizing behaviors, such as depression, anxiety, somatic complaints, and shyness, are regarded as the inward expression of distress. Externalizing behaviors, such as aggression, rule breaking behaviors, and social problems, are regarded as the outward expression of distress. The

expression of one or both of these patterns of behavior is regarded as maladaptive and indicative of poor functioning. When exploring the influence of the family environment on adolescent development, it is relevant include internalizing and externalizing behaviors as adolescent outcomes of interest.

In addition to adolescent behaviors, the options adolescents maintain regarding their worth and competence is relevant when understanding adolescent development. Adolescence is a life stage in which teenagers develop their identity and understanding of themselves (Cummings et al., 2000). Therefore, the valence of their understanding of self-worth, specifically whether an adolescent views himself or herself in a positive or negative light, indicates how successfully an adolescent has accomplished an affirming view of themselves which is considered to be pivotal to healthy development. Therefore, another adolescent outcome of interest is adolescent self-esteem.

Research Aims and Hypotheses

The current study aimed to 1) examine the extent to which transracially adopted adolescents and their parents agree in their perceptions of the family, 2) explore the possible confounding relationship between discrepancy in perceptions of the family and family cohesion and/or family conflict, 3) examine the unique influence of discrepancy in adolescent-parent perceptions of the family on transracially adopted adolescent developmental outcomes, 4) examine the association between parental awareness of race and transracially adopted adolescent developmental outcomes, and 5) explore parental awareness of race as a moderator of the link between discrepancy in adolescent-parent perceptions of the family and transracially adopted adolescent developmental outcomes. The research questions and hypotheses were derived from these six overarching aims.

Given the appropriateness of different operationalizations of discrepancy in adolescent-parent perceptions of the family depends on the research questions and hypotheses, specifically whether the direction or amount of discrepancy in perceptions is of most relevance (Carlton-Ford et al., 1991), operationalization was determined by these guidelines. Since the first aim explored whether or not parent and adolescent views of the family were similar, it was possible to determine the direction of the discrepancy, specifically which reporter had more positive or less positive views of the family. Since the purpose of the third and fifth aims was to understand the influence of the amount of discrepancy, and not the direction of the discrepancy, in perceptions on adolescent developmental outcomes, discrepancy in adolescent-parent perceptions of the family was operationalized as absolute-value discrepancy scores. The predominant use of this operationalization in the literature (Carlson et al., 1991; Ohannessian et al., 2000) offers additional support for the use of absolute-value discrepancy scores in this study.

Aim 1: To examine the extent to which transracially adopted adolescents and their parents agree in their perceptions of the family. Based on extant literature on discrepancy in adolescent-parent perceptions of the family suggesting that adolescents typically view their family more negatively than their parents (Feldman et al., 1989; Ohannessian et al., 1995, 2000), the following hypotheses were made.

Hypothesis 1: It is expected that transracially adopted adolescents will view the family as less cohesive than their parents.

Hypothesis 2: It is expected that transracially adopted adolescents will view the family as more conflictual than their parents.

Aim 2: To explore the possible confounding relationship between discrepancy in perceptions of the family and family cohesion and/or family conflict. Prior literature on the discrepancy of adolescent-parent perceptions of the family predominantly investigates the influence of differences in perceptions of family cohesion and family conflict on adolescent outcomes, conceptualizing discrepancy in perceptions of the family as a measure for an adolescent's autonomy from the family (Ohannessian et al., 1995, 2000). However, this literature fails to acknowledge that the level of discrepancy in perceptions may not add to the explanation of developmental outcomes above and beyond family cohesion or family conflict alone. This raises the question of whether it is necessary to utilize a discrepancy score of perceptions of cohesion and conflict as opposed to individual perceptions of family cohesion and conflict to understand adolescent development. This aim was exploratory and therefore the following research questions were proposed.

Research Question 1: Are views of family cohesion associated with adolescent-parent discrepancy in perceptions of family cohesion?

Research Question 2: Are views of family conflict associated with adolescent-parent discrepancy in perceptions of family conflict?

Aim 3: To examine the unique influence of discrepancy in adolescent-parent perceptions of the family on transracially adopted adolescent developmental outcomes. The theoretical foundations of the proposed study (Carter & McGoldrick, 1999; Duvall, 1957; Olson et al., 1979) and findings from the existing literature on discrepancy in adolescent-parent perceptions of the family (Carlson et al., 1991; Holmbeck & O'Donnell, 1991; Ohannessian et al., 1995, 2000) suggest adolescents forge their own perspectives of the

family, distinct from their parents, and this is developmentally appropriate given the developmental task to seek autonomy from the family. The literature also suggests an optimal amount of discrepancy in perceptions to facilitate healthy adolescent development. Specifically, high or low discrepancy in perceptions may hinder adolescents from successfully accomplishing developmental tasks, as indicated by poorer developmental outcomes, while an optimal amount of discrepancy in perceptions enables a balance of autonomy and connection to the family. Therefore, the following hypotheses were made regarding a linear and curvilinear relationships between discrepancy in adolescent-parent perceptions of the family and transracially adopted adolescent developmental outcomes.

Hypothesis 3: The amount of discrepancy in adolescent-parent perceptions of *family cohesion* is expected to be linearly related to *transracially adopted adolescent self-esteem*, such that adolescents in families with more discrepancy will have higher self-esteem.

Hypothesis 4: The amount of discrepancy in adolescent-parent perceptions of *family cohesion* is expected to be curvilinearly related to *transracially adopted adolescent self-esteem*, such that adolescents in families with a moderate amount of discrepancy will report higher self-esteem compared to adolescents in families with low and high amounts of discrepancy. The plot of this relationship is expected to resemble an inverted U-shaped curve.

Hypothesis 5: The amount of discrepancy in adolescent-parent perceptions of *family cohesion* will be linearly related to *transracially adopted adolescent*

internalizing behaviors, such that adolescents in families with more discrepancy will have less internalizing behaviors.

Hypothesis 6: The amount of discrepancy in adolescent-parent perceptions of *family cohesion* will be curvilinearly related to *transracially adopted adolescent internalizing behaviors*, such that adolescents in families with a moderate amount of discrepancy are expected to report less internalizing behaviors compared to adolescents in families with low and high amounts of discrepancy. The plot of this relationship expected to resemble a U-shaped curve.

Hypothesis 7: The amount of discrepancy in adolescent-parent perceptions of *family cohesion* will be linearly associated with *transracially adopted adolescent externalizing behaviors*, such that adolescents in families with more discrepancy will have less externalizing behaviors.

Hypothesis 8: The amount of discrepancy in adolescent-parent perceptions of *family cohesion* will be curvilinearly associated with *transracially adopted adolescent externalizing behaviors*, such that adolescents in families with a moderate amount of discrepancy are expected to report less externalizing behaviors compared to adolescents in families with low and high amounts of discrepancy. The plot of this relationship is expected to resemble a U-shaped curve.

Hypothesis 9: The amount of discrepancy in adolescent-parent perceptions of *family conflict* is expected to be linearly related to *transracially adopted adolescent self-esteem*, such that adolescents in families with more discrepancy will have higher self-esteem.

Hypothesis 10: The amount of discrepancy in adolescent-parent perceptions of *family conflict* is expected to be curvilinearly related to *transracially adopted adolescent self-esteem*, such that adolescents in families with a moderate amount of discrepancy will report higher self-esteem compared to adolescents in families with low and high amounts of discrepancy. The plot of this relationship is expected to resemble an inverted U-shaped curve.

Hypothesis 11: The amount of discrepancy in adolescent-parent perceptions of *family conflict* will be linearly related to *transracially adopted adolescent internalizing behaviors*, such that adolescents in families with more discrepancy will have less internalizing behaviors.

Hypothesis 12: The amount of discrepancy in adolescent-parent perceptions of *family conflict* is expected to be curvilinearly associated with *transracially adopted adolescent internalizing behaviors*, such that adolescents in families with a moderate amount of discrepancy are expected to report less internalizing behaviors compared to adolescents in families with low and high amounts of discrepancy. The plot of this relationship is expected to resemble a U-shaped curve.

Hypothesis 13: The amount of discrepancy in adolescent-parent perceptions of *family conflict* will be linearly associated with *transracially adopted adolescent externalizing behaviors*, such that adolescents in families with more discrepancy will have less externalizing behaviors.

Hypothesis 14: The amount of discrepancy in adolescent-parent perceptions of *family conflict* is expected to be curvilinearly associated with *transracially*

adopted adolescent externalizing behaviors, such that adolescents in families with a moderate amount of discrepancy are expected to report less externalizing behaviors compared to adolescents in families with low and high amounts of discrepancy. The plot of this relationship is expected to resemble a U-shaped curve.

Aim 4: To examine the association between parental awareness of race and transracially adopted adolescent developmental outcomes. Findings from the adoption literature highlight the influence of parental cultural competence on transracially adopted adolescent development, in particular suggesting that when parents are more racially aware, they create an environment more conducive to facilitating the healthy development of their racial minority child (Vonk, 2001). Therefore, the following hypotheses were posited.

Hypothesis 15: It is expected that parental awareness of race will be positively associated with transracially adopted adolescent self-esteem.

Hypothesis 16: It is expected that parental awareness of race will be negatively associated with transracially adopted adolescent internalizing behaviors.

Hypothesis 17: It is expected that parental awareness of race will be negatively associated with transracially adopted adolescent externalizing behaviors.

Aim 5: To explore parental awareness of race as a moderator of the link between discrepancy in adolescent-parent perceptions of the family and transracially adopted adolescent developmental outcomes. While an argument can be made for parental racial awareness as an important factor influencing the context in which transracially adopted adolescents develop and navigate closeness and distance from the family, the generation

of hypotheses regarding how parental racial awareness serves as a moderator of the link between discrepancy in perceptions and developmental outcomes is limited. Parental awareness of race may exaggerate the relationship or may alter the relationship, but the lack of relevant literature exploring perceptual discrepancy in the context of transracial adoption makes it unclear how parental awareness of race moderates the relationship. Therefore, six proposed research questions were included to explore how parental awareness of race factors into the relationship between discrepancy in adolescent-parent perceptions of the family and transracially adopted adolescent developmental outcomes.

Research Question 3: Does parental awareness of race moderate the link between discrepancy in adolescent-parent perceptions of *family cohesion* and *transracially adopted adolescent self-esteem*?

Research Question 4: Does parental awareness of race moderate the link between discrepancy in adolescent-parent perceptions of *family cohesion* and *transracially adopted adolescent internalizing behaviors*?

Research Question 5: Does parental awareness of race moderate the link between discrepancy in adolescent-parent perceptions of *family cohesion* and *transracially adopted adolescent externalizing behaviors*?

Research Question 6: Does parental awareness of race moderate the link between discrepancy in adolescent-parent perceptions of *family conflict* and *transracially adopted adolescent self-esteem*?

Research Question 7: Does parental awareness of race moderate the link between discrepancy in adolescent-parent perceptions of *family conflict* and *transracially adopted adolescent internalizing behaviors*?

Research Question 8: Does parental awareness of race moderate the link between discrepancy in adolescent-parent perceptions of *family conflict* and *transracially adopted adolescent externalizing behaviors*?

Chapter 3: Methodology

This chapter provides an overview of the sample. Each variable of interest is operationalized and specific instruments utilized to measure each variable are described.

Sample

The study utilized data collected as part of a larger research study on transracial adoptive families conducted jointly by the Department of Family Science at the University of Maryland, College Park and the Center for Adoption Support and Education (C.A.S.E.), a national center for educational programs and support for adoptive families based in Maryland. The specific focus of the larger study was to examine the impact of family characteristics on the overall adjustment and racial identity of racial minority youth adopted by white parents. The dataset includes responses from transracially adopted adolescents and one of their white parents collected at one point in time between 2007 and 2012.

Adopted racial minority youth and one of each youth's white parents were recruited nationally. Inclusion criteria for participation included adoptees being between the ages of 13-18, being of any race other than Caucasian, having been in the adoptive home by the age of 4, and lived in the United States for the majority of the adolescent's life. Ages of participants were limited to 13-18 for several reasons: 1) the focus of the study is on the developmental stage of adolescence, 2) issues of racial identity have been found to be very salient for this age group (Quintana, 2007), and 3) several of the survey instruments being used are designed for and validated on this age group. Children adopted at older ages tend to have poorer developmental outcomes due to pre-adoption stressors, such exposure to abuse and neglect (Fensbo, 2004). Participants must have

been in the adoptive home prior to the age of 4, in an effort minimize the length of time children were exposed to pre-adoption stressors and to ensure a majority of the adolescent's family life was spent with the current adoptive family.

Efforts were made to recruit adolescents to reflect the racial diversity of transracially adopted youth. One of the limitations of the transracial adoption literature linking parental cultural competence to adolescent wellbeing is the examination of Asian children adopted into Caucasian families (Lee & Quintana, 2005; Thomas & Tessler, 2007; Yoon, 2001) without investigation of children of other ethnicities and races. Therefore, in addition to recruitment of transracially adoptive families in general, recruitment efforts specifically targeted non-Asian racial minority youth. Efforts included identification of organizations serving transracial adoptive families with adoptive children from non-Asian countries, such as Central American, South American, and African countries. Since a very small percentage of adopted Asian children were adopted from foster care or private adoption, whereas a higher percentage of children of other races, such as black or of Hispanic origin were adopted through these means (Vandivere, et al., 2009), recruitment of non-Asian youth also focused on recruitment via domestic adoption organizations and agencies. Finally, support groups for transracially adoptive families with children of ethnicities and races other than Asian were identified and contacted regarding the study.

The sample consisted of 70 parent-child dyads¹. The age of adopted adolescents ranged from 13 to 18 years old with a mean of 14.86 years ($SD = 1.51$). Participating

¹ Based on a power analysis conducted in G*Power 3.0, 77 participant dyads were required to uncover statistically significant results. This calculation for detecting statistically significant results for a multiple regression analysis (ΔR^2) was based on seven predictors [2 independent variables, 1 interaction term, and 4 controls (Note: race of the child will be reflected in two dummy coded variables)] and a medium effect size

adolescents were primarily female (74%) compared to male (26%). Just over half of the adopted adolescents identified as Asian (54%), followed by 27% identifying as African American and 19% identifying as Latino. Of the 70 parents responding, 62 (90%) were mothers and 7 (10%) were fathers. The average age of parent respondents was 54.70 years ($SD = 5.80$), ranging from 39 and 63 years, and was based on the 23 parents responding to this question. Forty-five of the parents were currently married (65%), 14 were never married (20%), 10 were currently separated or divorced (15%), and one did not indicate her marital status. The median household income was \$110,000 with a range of \$20,000 to \$350,000. Therefore, most of the participating families are fairly well-off financially. Parents reported that 48 (70%) of the adoptions were international and 21 (30%) were domestic, and one did not indicate the source of the adoption. On average, adopted children entered the adoptive home when they were 10 months old ($SD = 11.21$), and ranged from being placed a birth to 3.5 years old. To summarize, the sample consisted of mostly mothers of female adolescents. A majority of the adopted teenagers identified as Asian and were internationally adopted.

Procedure

To recruit families, adoption agencies and support centers that often collaborate with C.A.S.E. were contacted regarding their willingness to recruit families from their agencies to participate. Agencies agreeing to participate posted an announcement about the study on their website, listserv, or newsletters or sent letters and flyers to their clients, describing the study and inviting them to participate (See Appendix A, Appendix B, and Appendix C for recruitment letters and flyers). Recruitment efforts also included online

($f^2 = .15$) with a significance level of .05 and .80 power. Due to challenges related to data collection and missing data from participating couples, the final sample was 70 dyads. Based on the smaller sample size, post hoc power analysis revealed the achieved power to be .75.

advertising through adoption listservs. After identification of relevant listservs, listserv administrators were contacted to request permission to send an advertisement for the study to their listserv members. Interested parents were directed to call or e-mail the principal investigator to find out more about the study and to see if their family fit the recruitment criteria. The criteria for participation included the adoptive parents identifying as Caucasian and the adoptee being of any race other than Caucasian. Additionally, the adolescent adoptee must have been between the ages of 13-18, been in the adoptive home by the age of 4, and lived in the United States for the majority of his or her life.

If the family fit the recruitment criteria, the principal investigator sent an e-mail to parents with a copy of the teen survey for them to examine. Parents were asked to give their consent for their child under 18 years of age to participate by providing the principal investigator with their adolescent's name and either email address or phone number, thereby granting permission for their child to be contacted. The principal investigator emailed or called the adolescent to invite the adolescent to participate. Once the adolescent indicated his or her willingness to participate, the principal investigator sent separate links to the parent and adolescent to complete an online survey. Informed consent or assent statements were included as the first item in the parent and teen versions of the online survey, respectively.

The online survey took approximately 20 minutes for each family member to complete. Parents were asked to report on family, parent, and adolescent demographic information, the family environment, multicultural experiences, racial socialization practices, awareness of race, and their adolescent's developmental outcomes. Adolescents

were asked to report on adolescent demographic information, the family environment, ethnic identity, multicultural experiences, experiences of racist events, and developmental outcomes, including self-esteem, internalizing behaviors, and externalizing behaviors. Upon completion of the survey, adolescents received a \$10 iTunes gift card. Information regarding parents and adolescents interested in participating and completing the online survey can be found in Table 1.

Table 1

Summary of Interested and Participating Families

Variable	Frequency
Contacted Primary Investigator (Parent)	149
Consent to Contact Adolescent (Parent)	105
Agreed to Participate (Adolescent)	88
Completed Survey (Adolescent)	73
Completed Survey (Parent)	81
Parent-Adolescent Dyads	70

Thus, 54% of the parents expressing interest in the study ultimately completed the survey and 70% of the adolescents invited to participate completed the survey.

Measures

Demographic data.

Demographic information for both the parent and adolescent were collected (See Appendix D). Parents reported on their gender, ethnicity, relationship status and duration, and household income. Information regarding the adoption, such as the child's age at adoption and whether the adoption was domestic or international, was also collected from parents. Adolescents reported on their age, gender, and ethnicity.

Dependent variables: Adolescent developmental outcomes.

Adolescent developmental outcomes were measured using adolescent report of their self-esteem, internalizing behaviors, and externalizing behaviors. Although parents reported on adolescent internalizing and externalizing behaviors, adolescent reports of their own behaviors were used in this study. Information about adolescent self-esteem was collected solely from the adolescent, and the decision to utilize adolescent report of internalizing and externalizing behaviors was partly based on maintaining consistency in the reporter of adolescent outcomes. Additionally, while parents may provide critical information about their child's behaviors, adolescents may be better equipped to describe their personal experiences, especially internalizing behaviors since these behaviors may not be easily observed by parents (Sourander, Helstelä, & Helenius, 1999).

Adolescent self-esteem.

The proposed study assessed adolescent self-esteem utilizing the *Rosenberg Self-Esteem Scale* (Rosenberg, 1965), a widely-used measure of adolescent perceptions of self-value and self-worth. The *Rosenberg Self-Esteem Scale* has been used to assess self-esteem in studies of transracial adoptee outcomes (Alstein & Simon, 1991; Westhues & Cohen, 1997) and has high internal reliability with this population (Evan B. Donaldson Adoption Institute, 2009; Lee, 2003a). The *Rosenberg Self-Esteem Scale* consists of 10 items, in which adolescents rate their agreement to each statement on a 4-response-category Likert-scale where 1 = Strongly Disagree, 2 = Disagree, 3 = Agree and 4 = Strongly Agree (For scale items see Appendix E). Total self-esteem scores were calculated for each adolescent by summing the 10 answers. The total self-esteem scores can range from 10 to 40 with higher total scores signifying higher levels of self-esteem.

The present study found the *Rosenberg Self-Esteem Scale* to have good internal consistency ($\alpha = .84$).

Adolescent internalizing and externalizing behaviors.

Adolescent internalizing and externalizing behaviors were measured utilizing the Youth Self-Report (YSR) version of the *Child Behavior Checklist* (CBCL; Achenbach, 1991; Achenbach & Rescorla, 2001). The YSR requests adolescents to report on their own functioning across eight areas of competence and problem behaviors. The YSR consists of 112 statements which each describe a behavior. Adolescents rate how each behavior statement reflects their experience on a 3-response-category Likert-scale where 0 = Not true, 1 = Somewhat or Sometimes True, and 2 = Very True or Often True. This study utilized three subscales from the YSR.

The YSR is an appropriate measure for use with transracially adopted adolescents because it is normed for children aged 11 to 18 years old and for children of different cultures/ethnicities (Achenbach & Rescorla, 2001). The instrument's manual provides evidence for the content validity, criterion-related validity, and the construct validity, in addition to the test-retest reliability and internal consistency of subscales (Achenbach & Rescorla, 2001).

Internalizing behaviors.

To assess adolescent internalizing behaviors, the inward expression of distress, the proposed study utilized the Anxious/Depressed subscale consisting of 8 items and the Withdrawn/Depressed subscale consisting of 12 items from the YSR (See Appendix F for subscale items). The Anxious/Depressed subscale and the Withdrawn/Depressed subscale have Cronbach alphas of .84 and .71 respectively (Achenbach & Rescorla, 2001). To

create a total internalizing behaviors score, answers to the 20 items were summed. The total internalizing behavior scores could range from 0 to 40 with higher total scores signifying a higher level of internalizing behaviors. The internalizing behaviors scale was found to have good internal consistency ($\alpha = .89$).

Externalizing behaviors.

To assess adolescent externalizing behaviors, the outward expression of distress, the proposed study utilized the Aggressive Behavior subscale consisting of 16 items from the YSR (See Appendix G for subscale items). The Aggressive Behavior subscale has a Cronbach alpha of .86 (Achenbach & Rescorla, 2001), and in the present study was found to have good internal consistency ($\alpha = .84$). To create a total externalizing behaviors score, answers to the 16 items were summed. The total externalizing behaviors could range from 0 to 32 with higher total scores signifying higher levels of externalizing behaviors.

Independent variables.

Adolescent and parent perceptions of family functioning.

The *Family Environment Scale* (FES; Moos & Moos, 1994) was used to measure adolescent and parent ratings of family cohesion and family conflict. The FES consists of 90 items with 10 subscales. Parents and adolescents respond to a series of statements by indicating whether the statement is 1 = true or 2 = false in relation to their family. According to the FES manual (Moos & Moos, 1994), the 10 subscales have internal consistency ranging from .61 to .78 and test-retest reliability for 2 month, 3 month, and 12 month intervals. Additionally, the FES has face validity, content validity, and construct validity (Moos & Moos, 1994).

Family cohesion.

The study utilized the cohesion subscale comprised of 9 items to measure perceptions of family cohesion (See Appendix H for subscale items). The cohesion subscale measures the degree of commitment, help, and support family members provide (Moos & Moos, 1994). Total family cohesion scores were calculated for each parent by summing their 9 answers and for each adolescent by summing their 9 answers. Scores could range from 9 to 18 with higher total scores signifying a higher level of family cohesion. In this study, although the scale of adolescent views of family cohesion demonstrated adequate internal consistency ($\alpha = .77$), the scale of parent views of family cohesion had questionable internal consistency ($\alpha = .52$).

Family conflict.

The study utilized the conflict subscale comprised of 9 items to measure perceptions of family conflict (See Appendix H for subscale items). The conflict subscale measures the amount of openly expressed anger and conflict among family members (Moos & Moos, 1994). Total family conflict scores were calculated for each parent by summing their 9 answers and for each adolescent by summing their 9 answers. Scores could range from 9 to 18 with higher total scores signifying a higher level of family conflict. In this study, both the adolescent conflict scale ($\alpha = .69$) and parent conflict scale ($\alpha = .73$) was found to have acceptable internal consistency.

Discrepancy in adolescent and parent perceptions of family functioning.

To measure discrepancy in adolescent-parent perceptions of family cohesion and family conflict, adolescent and parent perceptions of the family maintained by each reporter were measured utilizing the *Family Environment Scale* (FES; Moos & Moos,

1994) as previously described. The discrepancy scores were computed by subtracting the adolescent's score from the parent's score and taking the absolute-value of this difference. The procedure for calculating discrepancy scores were conducted for family cohesion and family conflict. Higher discrepancy scores indicated a larger amount of discrepancy in perceptions.

The decision to use absolute-value discrepancy scores versus simple discrepancy scores depends on a study's hypotheses (Carlton-Ford et al., 1991). When the amount of discrepancy of perceptions and not the direction of the discrepancy is of most interest, then the literature recommends utilizing absolute-value discrepancy scores (Carlson et al., 1991; Carlton-Ford et al., 1991; Ohannessian et al., 2000). Absolute-value discrepancy scores were used since it was hypothesized that the amount of discrepancy in perceptions between adolescents and parent, regardless of which reporter has more positive or negative views of the family, influences developmental outcomes of the adolescent.

Moderating variable.

Parental awareness of race.

The *Color-Blind Racial Attitudes Scale* (CoBRAS; Neville, Lilly, Duran, Lee, & Browne, 2000) was used to measure parental awareness of race. The CoBRAS assesses cognitive aspects of color-blind attitudes on three dimensions, including unawareness of racial privilege (i.e., "White people in the U.S. have certain advantages because of the color of their skin"), institutional discrimination (i.e., "It is important for people to think of themselves as American and not African American, Mexican American, or Italian American"), and blatant racial issues (i.e., "Racism may have been a problem in the past, it is not an important problem today"). On a 6-response category Likert-scale ranging

from 1 = Strongly Disagree to 6 = Strongly Agree, parents indicated their level of agreement with 20 statements (See Appendix I for scale items). Total awareness of race scores was calculated for each parent by summing the 20 answers. The total awareness of race scores could range from 20 to 120 with higher total scores signifying a higher level of awareness. Please note, the original scoring proposed by Neville et al. coded answers so higher scores reflected more colorblind attitudes, meaning less awareness of race. To facilitate interpretation of the findings, the current study coded the items differently, so that higher scores reflected more awareness of race. The CoBRAS has construct, concurrent, discriminate, and criterion-related validity according to the initial construction and validation of the instrument (Neville et al.). Additionally, the CoBRAS has demonstrated reliability, including adequate internal consistency for the total scale ($\alpha = .91$), split-half reliability, test-retest reliability over a two week time period (Neville et al.). In the present study, the CoBRAS had high internal consistency ($\alpha = .91$).

Control variables.

The age, gender, and race/ethnicity of the adolescent as reported by the adolescent (See Appendix D) were control variables. Since age, gender, and race/ethnicity are predictors of adolescent developmental outcomes (Cummings et al., 2000), controlling for these variables was intended to isolate the independent effect of discrepancy in adolescent-parent perceptions of the family on adolescent developmental outcomes.

Chapter 4: Results

Overview of Analyses

Psychometric properties for each scale were computed, including mean, standard deviation, Cronbach's alpha, minimum value, and maximum value.

Aim 1 examined the extent to which transracially adopted adolescents and their parents agree in their perceptions of the family. Hypotheses 1 and 2 stated transracially adopted adolescents will view their family as less cohesive and more conflictual than their parents, respectively. The means of adolescent and parent perceptions of the family were compared to yield information about which reporter maintained more negative views of the family. T-tests were used to explore if the differences in the means of the parent and the adolescent reports of family cohesion and family conflict were statistically significantly different from one another.

Prior to exploring aim 2, Pearson's correlation coefficients were used to explore if adolescent and parent reports of family cohesion and family conflict were related to one another. The Pearson's correlation coefficients provided information regarding the strength and the direction of the relationship between adolescent and parent perceptions of the family. If results suggested adolescent and parent perceptions of family cohesion and/or family conflict were related, then only the adolescent views of the family would be utilized in subsequent analyses to avoid redundancy. Since this study was particularly interested in looking at individuation of the adolescent, adolescent scores would be deemed more indicative of their experience of the family and how the adolescent views the family, and therefore would be selected over parent perceptions.

The purpose of aim 2 was to explore the possible confounding relationship between discrepancy in perceptions of the family and family cohesion and/or family conflict. Pearson's correlation coefficients were used to answer research questions 1 and 2. The first question explored the association between discrepancy in perceptions of family cohesion and individual views of family cohesion. The second question explored the relationship between discrepancy in perceptions of family conflict and individual views of family conflict. The Pearson's correlation coefficients provided information regarding the strength and the direction of the relationships.

If discrepancy in adolescent-parent perceptions of family cohesion and individual views of family cohesion were found to be related in Aim 2, then individual views of family cohesion would be used as a control variable in subsequent analyses exploring discrepancy in cohesion. This was done so that only the variance accounted for by discrepancy, the variable of interest in this study, could be assessed. Similarly, if the association between discrepancy in adolescent-parent perceptions of family conflict and individual views of family conflict were found in Aim 2, then individual views of family conflict would be used as a control variable in subsequent analyses exploring discrepancy in conflict².

Hierarchical regression analyses were used to address Aim 3 by testing the hypothesized linear and curvilinear relationships between discrepancy in perceptions of the family and adolescent outcomes stated in hypotheses 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, and 14. Hypotheses 3, 5, and 7 examined the linear relationships between discrepant

² Additional analyses were run including both family cohesion and family conflict as controls. The results of these analyses did not differ from the results of the regressions controlling only for family cohesion when exploring discrepancy in cohesion and controlling only for family conflict when exploring discrepancy in conflict.

views of family cohesion and adolescent self-esteem, internalizing behaviors, and externalizing behaviors, respectively, while hypotheses 4, 6, and 8 explored the curvilinear relationships. Hypotheses 9, 11, and 13 examined the linear relationships between discrepant views of family conflict and adolescent self-esteem, internalizing behaviors, and externalizing behaviors, respectively, while hypotheses 10, 12, and 14 explored the curvilinear relationships. Each developmental outcome (adolescent self-esteem, internalizing behaviors, and externalizing behaviors) was assessed separately and each was regressed onto predictor variables entered in blocks.

The hierarchical procedure aims to determine the best fitting model to describe the relationship among variables (Cohen, Cohen, West, & Aiken, 2003). The variables were added to the regression model in a sequential process to assess for any change in the predictive value of the model, as measured by the R^2 statistic and the test for significant ΔR^2 (Δ = change in) at each step. In addition, the overall statistical significance of the model and the standardized regression coefficients were assessed. In step 1, the developmental outcome was regressed onto the control variables (adolescent age, gender, and race) to assess the association between control variables and the developmental outcome of interest. In step 2, adolescent perceptions of family cohesion or family conflict was entered as a control if needed. Family cohesion was entered for regressions involving discrepancy in family cohesion, and family conflict was entered for regressions involving discrepancy in family conflict. In step 3, discrepancy in adolescent-parent perceptions of the family was entered to assess the linear relationship between the discrepancy in perceptions and the developmental outcome. In step 4, discrepancy in adolescent-parent perceptions of the family squared (the quadratic polynomial term) was

entered to assess the curvilinear relationship between discrepancy in perceptions and the developmental outcome.

The model for testing the linear and curvilinear relationships in each hierarchical regression was as follows:

$$Y_{\text{developmental outcome}} = \beta_0 + \beta_1(\text{age}) + \beta_2(\text{gender}) + \beta_3(\text{race}) + \beta_4(\text{individual views}) + \beta_5(\text{discrepancy}) + \beta_6(\text{discrepancy})^2 + E_i$$

Step 2 was used to examine 1) the fit of the linear model, 2) the variance in the developmental outcome of interest explained by the model (R^2), and 3) the additional variance in the developmental outcome of interest explained when individual views of family cohesion or family conflict was added to the model above and beyond the variance explained by adolescent race, gender, and age (ΔR^2). Step 3 was used to examine 1) the fit of the linear model, 2) the variance in the developmental outcome of interest explained by the model (R^2), and 3) the additional variance in the developmental outcome of interest explained when the linear term was added to the model above and beyond the variance explained by the control variables (ΔR^2). Examining the fit of the curvilinear model is advised, regardless of the significance of the linear model fit, because a curvilinear relationship may better account for the relationship or may explain significantly more variation in the dependent variable than the linear model (Cohen & Cohen, 1983). Step 4 was conducted to examine 1) the fit of the curvilinear (quadratic) model, 2) the variance in the developmental outcome of interest explained by the model (R^2), and 3) the additional variance in the developmental outcome of interest explained when the quadratic polynomial term was added to the model above and beyond the variance explained by the control variables and the linear term (ΔR^2).

To minimize potential problems of multicollinearity between linear and quadratic terms of discrepancy in adolescent-parent perceptions of the family and to facilitate interpretation of results, the discrepancy in perceptions scores were centered on its mean (i.e., replacing the absolute value discrepancy score with its deviation from the mean) (Cohen & Cohen, 1983). The regression coefficients are susceptible to instability due to multicollinearity between the linear and quadratic terms of discrepancy in adolescent-parent perceptions of the family (Cohen et al., 2003). Therefore, interpretation of the regression coefficients is not advised and interpretation of ΔR^2 is the preferred method for interpreting the results (Cohen et al., 2003). However, if the curvilinear term is not found to be significant, multicollinearity between the linear and quadratic terms are no longer problematic. Under this condition, the regression coefficients were interpreted to understand the linear relationship between predictors and outcomes in this study.

Hypotheses 15, 16, and 17 of Aim 4 stated the expectation that higher parental awareness of race would be related to better developmental outcomes, specifically higher self-esteem, and lower internalizing and externalizing problems. These hypotheses were assessed by Pearson's correlation coefficients, examining the strength and direction of the relationship between parental awareness of race and adolescent outcomes.

Hierarchical regressions were used to determine if parental awareness of race moderated the linear and curvilinear relationships between discrepancy in perceptions and adolescent outcomes for research questions 3, 4, 5, 6, 7, and 8 in Aim 5. The analysis of parental awareness of race serving as a moderator of the *linear* link between discrepancy in perceptions and the adolescent outcome of interest would be conducted only if support for the *linear* relationship was found in Aim 3. To explore the role of

parental awareness of race as a moderator of the linear relationships between discrepancy in perceptions of family functioning and adolescent outcomes in Aim 5, the following hierarchical regressions were conducted. The variables were added to the regression model in a sequential process to assess for any change in the predictive value of the model, as measured by the R^2 statistic and the test for significant ΔR^2 (Δ = change in) at each step. In addition, the overall statistical significance of the model and the standardized regression coefficients were assessed. The model was as follows:

$$Y_{\text{developmental outcome}} = \beta_0 + \beta_1(\text{age}) + \beta_2(\text{gender}) + \beta_3(\text{race}) + \beta_4(\text{individual views}) + \beta_5(\text{awareness of race}) + \beta_6(\text{discrepancy}) + \beta_7(\text{discrepancy X awareness of race}) + E_i$$

In step 1, the developmental outcome was regressed onto the control variables (adolescent age, gender, and race) to assess the association between control variables and the developmental outcome of interest. In step 2, adolescent perceptions of family cohesion or family conflict was entered as a control to assess the linear relationship between individual views of the family and the developmental outcome. In step 3, discrepancy in adolescent-parent perceptions of the family and parental awareness of race were entered to assess the linear relationships between these variables and the developmental outcome. In step 4, the interaction of discrepancy in perceptions of the family and parental awareness of race (Discrepancy X Parental Awareness of Race) was added to assess moderation of the linear relationship. The change in the variance of the developmental outcome of interest explained (ΔR^2) when the interaction term was entered into the model in step 4 was examined. A statistically significant ΔR^2 provides support for moderation.

The analysis of parental awareness of race serving as a moderator of the *curvilinear* link between discrepancy in perceptions and the adolescent outcome of interest would be conducted only when support for the *curvilinear* relationship was found in Aim 3. To explore the role of parental awareness of race as a moderator of the curvilinear relationships between discrepancy in perceptions of family functioning and adolescent outcomes in Aim 5, the following hierarchical regressions were conducted. The model for assessing the interaction in each hierarchical regression was based on Aiken and West's (1991) delineation of testing a curvilinear X relationship, linear Z relationship, and a curvilinear X by linear Z interaction. In this study, discrepancy in perceptions was the curvilinear X term and parental awareness of race was the linear Z term. The model was as follows:

$$Y_{\text{developmental outcome}} = \beta_0 + \beta_1(\text{age}) + \beta_2(\text{gender}) + \beta_3(\text{race}) + \beta_4(\text{individual views}) + \beta_5(\text{awareness of race}) + \beta_6(\text{discrepancy}) + \beta_7(\text{discrepancy X awareness of race}) + \beta_8(\text{discrepancy})^2 + \beta_9(\text{discrepancy}^2 \text{ X awareness of race}) + E_i$$

In step 1, the developmental outcome was regressed onto the control variables (adolescent age, gender, and race) to assess the association between control variables and the developmental outcome of interest. In step 2, adolescent perceptions of family cohesion or family conflict was entered as a control to assess the linear relationship between individual views of the family and the developmental outcome. In step 3, discrepancy in adolescent-parent perceptions of the family and parental awareness of race were entered to assess the linear relationships between these variables and the developmental outcome. In step 4, the interaction of discrepancy in perceptions of the family and parental awareness of race (Discrepancy X Parental Awareness of Race) was

added to assess moderation of the linear relationship. In step 5, discrepancy in adolescent-parent perceptions of the family squared was added to examine the curvilinear relationship between discrepancy in perceptions and the developmental outcome. In step 6, the interaction of discrepancy in adolescent-parent perceptions of the family squared and parental awareness of race (Discrepancy² X Parental Awareness of Race) was added to assess the moderation of the curvilinear relationship. The change in the variance of the developmental outcome of interest explained (ΔR^2) when the interaction term was entered into the model in step 6 was examined. A statistically significant ΔR^2 provides support for moderation. As indicated earlier, the regression coefficients are susceptible to instability due to multicollinearity. Therefore, interpretation of the regression coefficients is not advised and interpretation of ΔR^2 is the preferred method for interpreting the results (Cohen et al., 2003).

Study Variables

The psychometric properties of the scales measuring the variables of interest can be found in Table 2. Additionally, the correlations between the variables can be found in Table 3.

Table 2

Psychometric Properties of Study Variables

Variable	<i>M</i>	<i>SD</i>	α	Min	Max
Cohesion					
Adolescent	15.77	2.29	.77	9	18
Parent	16.57	1.46	.52	12	18
Discrepancy	1.71	1.62	--	0	7
Conflict					
Adolescent	12.86	2.26	.69	9	18
Parent	12.19	2.16	.73	9	17
Discrepancy	2.01	1.45	--	0	6
Parental Awareness of Race	90.20	16.80	.91	54	117
Adolescent Self-esteem	30.94	5.64	.84	15	40
Adolescent Internalizing Behaviors	9.51	6.76	.89	1	31
Adolescent Externalizing Behaviors	6.57	4.91	.84	0	24

Table 3

Correlation Matrix for Study Variables

	1	2	3	4	5	6	7	8	9
1. Adolescent Cohesion	-								
2. Parent Cohesion	.36**	-							
3. Cohesion Discrepancy	-.74**	-.09	-						
4. Adolescent Conflict	-.39**	-.41***	.29*	-					
5. Parent Conflict	-.17	-.31*	.09	.41***	-				
6. Conflict Discrepancy	-.10	.09	.11	.38***	-.14	-			
7. Parental Awareness of Race	-.16	.11	.16	-.06	-.09	.07	-		
8. Adolescent Self-esteem	.22	.04	-.17	-.12	-.06	.23	.18	-	
9. Adolescent Internalizing Behaviors	-.27**	-.08	.11	.27*	.28*	-.20	-.02	-.52**	-
10. Adolescent Externalizing Behaviors	-.34**	-.28*	.22	.40**	.37**	.01	-.06	-.27*	.45***

* $p < .05$, ** $p < .01$, *** $p < .001$

Tests of Hypotheses and Research Questions

The results of the analysis are presented below for each hypothesis and research question under each aim.

Aim 1: To examine the extent to which transracially adopted adolescents and their parents agree in their perceptions of the family.

Hypothesis 1: It is expected that transracially adopted adolescents will view the family as less cohesive than their parents.

As expected, transracially adopted adolescents viewed the family as less cohesive than parents [$t(138) = -2.47, p < .02$]. The mean score for adolescent views of family cohesion was 15.77 ($SD = 2.29$) and the mean score for parent views of family cohesion was 16.57 ($SD = 1.46$).

Hypothesis 2: It is expected that transracially adopted adolescents will view the family as more conflictual than their parents.

The mean score for adolescent views of family conflict ($M = 12.86, SD = 2.26$) and the mean score for parent views of family conflict ($M = 12.19, SD = 2.16$) were not statistically significantly different [$t(138) = 1.80, p < .08$]. Contrary to expectations, adoptive parents and their transracially adopted adolescents do not view their family differently with respect to family conflict.

Aim 2: To explore the possible confounding relationship between discrepancy in perceptions of the family and family cohesion and/or family conflict.

Since the adolescent and parent perceptions of family cohesion ($r = .36, p = .002$) and adolescent and parent perceptions of family conflict ($r = .41, p < .001$) were found to be related, the adolescent views were utilized in subsequent analyses. As indicated in the

Overview of the Analyses, adolescent individuation was of interest to the current study. Therefore, adolescent views were selected over parent views because the adolescents' perceptions better reflect their understanding of the family.

Research Question 1: Are views of family cohesion associated with adolescent-parent discrepancy in perceptions of family cohesion?

Pearson's correlation coefficients revealed a negative correlation between discrepancy in perceptions of cohesion and adolescent views of family cohesion ($r = -.74$, $p < .001$), such that lower discrepancy in perceptions of family cohesion was associated with adolescents reporting more cohesion in their family.

Research Question 2: Are views of family conflict associated with adolescent-parent discrepancy in perceptions of family conflict?

Pearson's correlation coefficients revealed a positive relationship between discrepancy in perceptions of conflict and adolescent views of family conflict ($r = .38$, $p = .001$), such that lower discrepancy in perceptions of family conflict was associated with adolescents reporting less conflict in their family.

The results from Aim 2 suggested family cohesion and family conflict were related to discrepancy in perceptions, and therefore may confound the expected relationship between discrepancy in perceptions of the family and adolescent outcomes. Since adolescent views of family cohesion and family conflict were statistically significantly related ($r = -.39$, $p = .001$), family cohesion was used as a control variable in the analyses related to Aim 3 and Aim 5. As indicated in the Overview of the Analyses, family cohesion was selected over family conflict because this study was guided theoretically by the Circumplex Model. This theoretical framework emphasizes

the importance of the level of family cohesion when assessing the functioning of families, and therefore posits the level of family cohesion influences individual family members' wellbeing (Olson et al., 1983; Olson et al., 1979).

Aim 3: To examine the unique influence of discrepancy in adolescent-parent perceptions of the family on transracially adopted adolescent developmental outcomes.

Each hierarchical regression presented reflects the steps described in the Overview of the Analyses to explain variation in adolescent outcomes by exploring the unique contributions of control variables, adolescent views of family cohesion, discrepancy in perceptions of the family, and the squared term of discrepancy in perceptions of the family.

Hypothesis 3: The amount of discrepancy in adolescent-parent perceptions of family cohesion is expected to be linearly related to transracially adopted adolescent self-esteem, such that adolescents in families with more discrepancy will have higher self-esteem.

Hypothesis 4: The amount of discrepancy in adolescent-parent perceptions of family cohesion is expected to be curvilinearly related to transracially adopted adolescent self-esteem, such that adolescents in families with a moderate amount of discrepancy will report higher self-esteem compared to adolescents in families with low and high amounts of discrepancy. The plot of this relationship is expected to resemble an inverted U-shaped curve.

Hierarchical regression was used to assess hypotheses 3 and 4. Table 4 summarizes the results for each step of this hierarchical regression. In step 1, adolescent age, gender, and race did not statistically significantly explain adolescent self-esteem ($\Delta R^2 = .01$, $F_{4,65} = .127$, $p = .98$). Less than 1% of the variance in adolescent self-esteem was explained by the controls. Approximately 5% of the variance in adolescent self-esteem was explained by adolescent views of family cohesion above and beyond the controls. The additional variance explained approached significance when family cohesion was added in step 2 ($\Delta R^2 = .05$, $F_{1,64} = 3.59$, $p = .06$). The standardized regression coefficient suggested self-esteem is higher for adolescents reporting more cohesion in the family ($\beta = .237$, $p = .06$). Tests of the linear and curvilinear relationships between discrepancy in perceptions of family cohesion and adolescent self-esteem were insignificant. The addition of the linear term in step 3 ($\Delta R^2 < .001$, $F_{1,63} = .012$, $p = .92$)

and the polynomial term in step 4 ($\Delta R^2 = .004$, $F_{1,62} = .236$, $p = .63$) did not statistically significantly add to the prediction of adolescent self-esteem.

Table 4

Summary of Hierarchical Regression Analysis for Discrepancy in Family Cohesion Predicting Self-Esteem

Model	1	2	3	4
Age	-.062	-.037	-.04	-.04
Race				
Asian	ref	ref	ref	ref
African American	-.021	-.038	-.039	-.04
Latino	-.048	-.047	-.046	-.04
Gender				
Female	ref	ref	ref	ref
Male	-.01	-.064	-.064	-.06
Family Cohesion		.237	.252	.27
Discrepancy in Family Cohesion			.020	-.016
(Discrepancy in Family Cohesion) ²				.08
ΔR^2	.008	.053	<.001	.004
$\Delta R^2 F$	.127	3.59	.012	.236
R^2	.008	.060	.061	.064
Model F	.127	.823	.677	.607

* $p < .05$, ** $p < .01$, *** $p < .001$

Hypothesis 5: The amount of discrepancy in adolescent-parent perceptions of family cohesion will be linearly related to transracially adopted adolescent internalizing behaviors, such that adolescents in families with more discrepancy will have less internalizing behaviors.

Hypothesis 6: The amount of discrepancy in adolescent-parent perceptions of family cohesion will be curvilinearly related to transracially adopted adolescent internalizing behaviors, such that adolescents in families with a moderate amount of discrepancy are expected to report less internalizing behaviors compared to adolescents in families with low and high amounts of discrepancy. The plot of this relationship expected to resemble a U-shaped curve.

Hierarchical regression was used to assess hypotheses 5 and 6. Table 5 summarizes the results from this hierarchical regression. In step 1, adolescent age, gender, and race did not statistically significantly explain adolescent internalizing behaviors ($\Delta R^2 = .03$, $F_{4,65} = .502$, $p = .73$). The controls accounted for 3% of the variance in adolescent internalizing behaviors. The addition of adolescent perceptions of family cohesion was statistically significant ($\Delta R^2 = .063$, $F_{1,64} = 4.42$, $p < .05$), accounting for an additional 6% of the variance in adolescent internalizing behaviors. The standardized regression coefficient suggested internalizing behaviors are lower for adolescents reporting more cohesion in the family ($\beta = -.259$, $p < .05$). Tests of the linear and curvilinear relationships between discrepancy in perceptions of family cohesion and adolescent internalizing behaviors were insignificant, such that the addition of the linear term in step 3 ($\Delta R^2 = .011$, $F_{1,63} = .739$, $p = .39$) and the polynomial term in step 4 (ΔR^2

=.018, $F_{1,62} = 1.283$, $p = .26$) did not statistically significantly add to the prediction of adolescent internalizing behaviors.

Table 5

Summary of Hierarchical Regression Analysis for Discrepancy in Family Cohesion Predicting Internalizing Behaviors

Model	1	2	3	4
Age	-.089	-.116	-.094	-.085
Race				
Asian	ref	ref	ref	ref
African American	-.069	-.051	-.039	-.050
Latino	.004	.003	.001	-.007
Gender				
Female	ref	ref	ref	ref
Male	-.104	-.044	-.044	-.062
Family Cohesion		-.259*	-.375*	-.416*
Discrepancy in Family Cohesion			-.157	-.076
(Discrepancy in Family Cohesion) ²				-.181
ΔR^2	.030	.063	.011	.018
$\Delta R^2 F$	.502	4.42*	.739	1.283
R^2	.030	.093	.103	.121
Model F	.502	1.307	1.208	1.223

* $p < .05$, ** $p < .01$, *** $p < .001$

Hypothesis 7: The amount of discrepancy in adolescent-parent perceptions of family cohesion will be linearly associated with transracially adopted adolescent externalizing behaviors, such that adolescents in families with more discrepancy will have less externalizing behaviors.

Hypothesis 8: The amount of discrepancy in adolescent-parent perceptions of family cohesion will be curvilinearly associated with transracially adopted adolescent externalizing behaviors, such that adolescents in families with a moderate amount of discrepancy are expected to report less externalizing behaviors compared to adolescents in families with low and high amounts of discrepancy. The plot of this relationship is expected to resemble a U-shaped curve.

Hierarchical regression was used to assess hypotheses 7 and 8. A summary of the results from the hierarchical regression can be found on Table 6. In step 1, adolescent age, gender, and race did not statistically significantly explain adolescent externalizing behaviors ($\Delta R^2 = .04$, $F_{4,65} = .684$, $p = .61$). The controls accounted for 4% of the variance in adolescent externalizing behaviors. The addition of adolescent perceptions of family cohesion was statistically significant ($\Delta R^2 = .14$, $F_{1,64} = 10.471$, $p < .01$), accounting for an additional 14% of the variance in adolescent externalizing behaviors. The standardized regression coefficient suggested externalizing behaviors are lower for adolescents reporting more cohesion in the family ($\beta = -.380$, $p < .01$). Additionally, the standardized regression coefficient for age of the adolescent suggested older adolescents report less externalizing behaviors than younger adolescents ($\beta = -.249$, $p < .05$). Tests of the linear and curvilinear relationships between discrepancy in perceptions of family cohesion and adolescent externalizing behaviors were insignificant, such that the addition of the linear

term in step 3 ($\Delta R^2 < .001$, $F_{1,63} < .001$, $p = .99$) and the polynomial term in step 4 ($\Delta R^2 = .001$, $F_{1,62} = .006$, $p = .94$) did not statistically significantly add to the prediction of adolescent externalizing behaviors.

Table 6

Summary of Hierarchical Regression Analysis for Discrepancy in Family Cohesion Predicting Externalizing Behaviors

Model	1	2	3	4
Age	-.209	-.249*	-.249*	-.249*
Race				
Asian	ref	ref	ref	ref
African American	-.006	.021	.021	.020
Latino	.041	.039	.039	.039
Gender				
Female	ref	ref	ref	ref
Male	.040	.127	.127	.126
Family Cohesion		-.380**	-.377*	-.380*
Discrepancy in Family Cohesion			.003	.009
(Discrepancy in Family Cohesion) ²				-.012
ΔR^2	.040	.135	<.001	<.001
$\Delta R^2 F$	.684	10.471**	<.001	.006
R^2	.040	.175	.175	.175
Model F	.684	2.721*	2.23*	1.884

* $p < .05$, ** $p < .01$, *** $p < .001$

Hypothesis 9: The amount of discrepancy in adolescent-parent perceptions of family conflict is expected to be linearly related to transracially adopted adolescent self-esteem, such that adolescents in families with more discrepancy will have higher self-esteem.

Hypothesis 10: The amount of discrepancy in adolescent-parent perceptions of family conflict is expected to be curvilinearly related to transracially adopted adolescent self-esteem, such that adolescents in families with a moderate amount of discrepancy will report higher self-esteem compared to adolescents in families with low and high amounts of discrepancy. The plot of this relationship is expected to resemble an inverted U-shaped curve.

Hierarchical regression was used to assess hypotheses 9 and 10. Table 7 summarizes the results from the hierarchical regression. Step 1 (adolescent age, race, and gender) in this analysis was the same as conducted in step 1 in the analysis for hypotheses 3 and 4, and therefore were the same results as reported above in the analysis of hypotheses 3 and 4. The addition of adolescent perceptions of family conflict in step 2 was not statistically significant ($\Delta R^2 = .014$, $F_{1,64} = .92$, $p = .34$). The linear discrepancy in perceptions of family conflict term added in step 3 uniquely explained approximately 9% of the variance in adolescent self-esteem ($\Delta R^2 = .090$, $F_{1,63} = 6.364$, $p < .05$). The standardized regression coefficient suggests self-esteem is higher for adolescents in families with more parent-adolescent discrepancy in perceptions of family conflict ($\beta = .327$, $p < .05$). However, the curvilinear discrepancy in perceptions of family conflict term did not statistically significantly add to explaining adolescent self-esteem ($\Delta R^2 = .008$, $F_{1,62} = .559$, $p = .46$).

Table 7

Summary of Hierarchical Regression Analysis for Discrepancy in Family Conflict Predicting Self-Esteem

Model	1	2	3	4
Age	-.062	-.076	-.087	-.058
Race				
Asian	ref	ref	ref	ref
African American	-.021	.004	-.017	-.026
Latino	-.048	-.030	-.052	-.070
Gender				
Female	ref	ref	ref	ref
Male	-.01	-.013	.025	.030
Family Conflict		-.122	-.241	-.234
Discrepancy in Family Conflict			.327*	.379*
(Discrepancy in Family Conflict) ²				-.108
ΔR^2	.008	.014	.090	.008
$\Delta R^2 F$	.127	.92	6.364*	.559
R^2	.008	.022	.112	.119
Model F	.127	.285	1.318	1.202

* $p < .05$, ** $p < .01$, *** $p < .001$

Hypothesis 11: The amount of discrepancy in adolescent-parent perceptions of family conflict will be linearly related to transracially adopted adolescent internalizing behaviors, such that adolescents in families with more discrepancy will have less internalizing behaviors.

Hypothesis 12: The amount of discrepancy in adolescent-parent perceptions of family conflict is expected to be curvilinearly associated with transracially adopted adolescent internalizing behaviors, such that adolescents in families with a moderate amount of discrepancy are expected to report less internalizing behaviors compared to adolescents in families with low and high amounts of discrepancy. The plot of this relationship is expected to resemble a U-shaped curve.

Hierarchical regression was used to assess hypotheses 11 and 12. Table 8 reports results from the hierarchical regression. Step 1 (adolescent age, race, and gender) in this analysis was the same as conducted in step 1 in the analysis for hypotheses 5 and 6, and therefore were the same results as reported above in the analysis of hypotheses 5 and 6. The addition of adolescent perceptions of family conflict in step 2 was statistically significant ($\Delta R^2 = .076$, $F_{1,64} = 5.455$, $p < .05$), accounting for approximately an additional 8% of the variance in adolescent internalizing behaviors. The standardized regression coefficient suggested internalizing behaviors are lower for adolescents reporting less conflict in the family ($\beta = .283$, $p < .05$). The linear discrepancy in perceptions of family conflict term added in step 3 uniquely explains 5% of the variance in adolescent internalizing behaviors ($\Delta R^2 = .110$, $F_{1,63} = 8.801$, $p < .01$). The standardized regression coefficient suggests internalizing behaviors are lower for adolescents in families with more parent-adolescent discrepancy in perceptions of family conflict ($\beta = -$

.361, $p = .05$). However, the curvilinear discrepancy in perceptions of family conflict term did not statistically significantly add to the understanding of internalizing behaviors ($\Delta R^2 < .001$, $F_{1,62} = .028$, $p = .87$).

Table 8

Summary of Hierarchical Regression Analysis for Discrepancy in Family Conflict Predicting Internalizing Behaviors

Model	1	2	3	4
Age	-.089	-.057	-.045	-.051
Race				
Asian	ref	ref	ref	ref
African American	-.069	-.127	-.104	-.102
Latino	.004	-.037	-.013	-.009
Gender				
Female	ref	ref	ref	ref
Male	-.104	-.097	-.139	-.140
Family Conflict		.283*	.415***	.413***
Discrepancy in Family Conflict			-.361*	-.372**
(Discrepancy in Family Conflict) ²				.023
ΔR^2	.030	.076	.110	<.001
$\Delta R^2 F$	.502	5.455*	8.801**	.028
R^2	.030	.106	.216	.216
Model F	.502	1.520	2.888*	2.441*

* $p < .05$, ** $p < .01$, *** $p < .001$

Hypothesis 13: The amount of discrepancy in adolescent-parent perceptions of family conflict will be linearly associated with transracially adopted adolescent externalizing behaviors, such that adolescents in families with more discrepancy will have less externalizing behaviors.

Hypothesis 14: The amount of discrepancy in adolescent-parent perceptions of family conflict is expected to be curvilinearly associated with transracially adopted adolescent externalizing behaviors, such that adolescents in families with a moderate amount of discrepancy are expected to report less externalizing behaviors compared to adolescents in families with low and high amounts of discrepancy. The plot of this relationship is expected to resemble a U-shaped curve.

Hierarchical regression was used to assess hypotheses 13 and 14. See Table 9 for results from the hierarchical regression. Step 1 (adolescent age, race, and gender) in this analysis was the same as conducted in step 1 in the analysis for hypotheses 7 and 8, and therefore were the same results as reported above in the analysis of hypotheses 7 and 8. The addition of adolescent perceptions of family conflict in step 2 was statistically significant ($\Delta R^2 = .156$, $F_{1,64} = 12.381$, $p < .001$), accounting for approximately an additional 16% of the variance in adolescent externalizing behaviors. The standardized regression coefficient suggested externalizing behaviors are lower for adolescents reporting less conflict in the family ($\beta = .405$, $p < .001$). Tests of the linear and curvilinear relationship between discrepancy in perceptions of family conflict and adolescent externalizing behaviors were insignificant, such that the addition of the linear term in step 3 ($\Delta R^2 = .020$, $F_{1,63} = 1.585$, $p = .21$) and the polynomial term in step 4 (ΔR^2

$=.021$, $F_{1,62} = .183$, $p = .67$) did not statistically significantly add to the prediction of adolescent externalizing behaviors.

Table 9

Summary of Hierarchical Regression Analysis for Discrepancy in Family Conflict Predicting Externalizing Behaviors

Model	1	2	3	4
Age	-.209	-.163	-.058	-.073
Race				
Asian	ref	ref	ref	ref
African American	-.006	-.088	-.078	-.073
Latino	.041	-.018	-.008	.002
Gender				
Female	ref	ref	ref	ref
Male	.040	.049	.032	.029
Family Conflict		.405***	.460***	.457***
Discrepancy in Family Conflict			-.153	-.181**
(Discrepancy in Family Conflict) ²				.058
ΔR^2	.040	.156	.020	.002
$\Delta R^2 F$	.684	12.381***	1.585	.183
R^2	.040	.196	.216	.218
Model F	.684	3.119*	2.887*	2.469*

* $p < .05$, ** $p < .01$, *** $p < .001$

Summary of Aim 3 Findings.

The addition of adolescent perceptions of family cohesion statistically significantly added to the explanation of adolescent internalizing behaviors and externalizing behaviors, and approached significance for adolescent self-esteem, above and beyond adolescent age, gender, and race. Contrary to expectations, the linear and polynomial terms of discrepancy in perceptions of family cohesion did not add to the explanation of developmental outcomes. The addition of family conflict statistically significantly added to the explanation of adolescent internalizing and externalizing behaviors. As expected, discrepancy in perceptions of family conflict uniquely contributed to explaining adolescent self-esteem and internalizing behaviors. However, the addition of discrepancy in perceptions of family conflict did not add to the understanding of adolescent externalizing behaviors. A curvilinear relationship between discrepancy in family conflict and adolescent outcomes was not supported for any of the developmental outcomes.

Aim 4: To examine the association between parental awareness of race and transracially adopted adolescent developmental outcomes.

Hypothesis 15: It is expected that parental awareness of race will be positively associated with transracially adopted adolescent self-esteem

Pearson's correlation coefficient did not provide support for hypothesis 15. Parental awareness of race was not associated with adolescent self-esteem ($r = .18, p = .15$).

Hypothesis 16: It is expected that parental awareness of race will be negatively associated with transracially adopted adolescent internalizing behaviors.

Pearson's correlation coefficient did not provide support for hypothesis 16.

Parental awareness of race was not associated with adolescent internalizing behaviors ($r = -.02, p = .86$).

Hypothesis 17: It is expected that parental awareness of race will be negatively associated with transracially adopted adolescent externalizing behaviors.

Pearson's correlation coefficient did not provide support for hypothesis 17.

Parental awareness of race was not associated with adolescent externalizing behaviors ($r = -.06, p = .64$).

Aim 5: To explore parental awareness of race as a moderator of the link between discrepancy in adolescent-parent perceptions of the family and transracially adopted adolescent developmental outcomes.

Results from Aim 3 revealed a linear relationship between discrepancy in perceptions of family conflict and adolescent developmental outcomes, specifically self-esteem and internalizing behaviors. Therefore, exploration of parental awareness of race as a moderator of the linear relationship between discrepancy in adolescent-parent perceptions of family conflict and transracially adopted adolescent outcomes was assessed to address research questions 6 and 7. Results from Aim 3 did not reveal a curvilinear relationship between discrepancy in adolescent-parent perceptions of family conflict and adolescent self-esteem or internalizing behaviors, therefore, moderation of the curvilinear relationships were not examined. Since the linear and curvilinear relationships between discrepancy in perceptions of family cohesion and adolescent developmental outcomes were not supported in Aim 3, research questions 3, 4, and 5 were unnecessary to explore. Similarly, research question 8 was not explored since the

linear and curvilinear relationships between discrepancy in perceptions of family conflict and externalizing behaviors were not supported.

Research Question 6: Does parental awareness of race moderate the link between discrepancy in adolescent-parent perceptions of family conflict and transracially adopted adolescent self-esteem?

Hierarchical regression was utilized to assess research question 6. See Table 10 for a summary of the analysis. Step 4 was of most interest when exploring the role of parental awareness of race as a moderator of the linear relationship between discrepancy in family conflict and adolescent self-esteem. The addition of the interaction term (Discrepancy in Family Conflict X Parental Awareness of Race) in step 4 did not statistically significantly add to the prediction of adolescent self-esteem ($\Delta R^2 = .008$, $F_{1,60} = .581$, $p = .50$). Although the standardized regression coefficient for discrepancy in perceptions of family conflict changes from .301 ($p < .05$) in step 3 to -.181 ($p = .78$) in step 4, potentially indicating a moderation effect, this may be attributed to multicollinearity between discrepancy in family conflict and the interaction term. Multicollinearity is problematic because a statistically significant correlation between the two variables may inflate the standard errors, thus making significant findings emerge as insignificant (Central Michigan University, n.d.). The correlation between discrepancy in perceptions of family conflict and the interaction term suggest the two variables are statistically significantly related ($r = .98$, $p < .001$). Additionally, drastic changes of the regression coefficients when adding a variable to the regression model is an indicator of multicollinearity (Central Michigan University, n.d.). This is similar to the change noted

in the regression coefficient for discrepancy in family conflict when the interaction term was added.

Table 10

Parental Awareness of Race as a Moderator of the Link between Discrepancy in Family Conflict and Self-Esteem

Model	1	2	3	4
Age	-.066	-.079	-.091	-.100
Race				
Asian	ref	ref	ref	ref
African American	-.029	-.005	-.019	-.007
Latino	-.055	-.037	-.030	-.018
Gender				
Female	ref	ref	ref	ref
Male	-.014	-.017	.020	.022
Family Conflict		-.115	-.255	-.228
Discrepancy in Family Conflict			.301*	-.181
Parental Awareness of Race			.135	.144
Discrepancy in Family Conflict X Parental Awareness of Race				.489
ΔR^2	.010	.013	.101	.008
$\Delta R^2 F$	.155	.808	3.516*	.581
R^2	.010	.022	.123	.132
Model F	.155	.285	1.225	1.137

* $p < .05$, ** $p < .01$, *** $p < .001$

Research Question 7: Does parental awareness of race moderate the link between discrepancy in adolescent-parent perceptions of family conflict and transracially adopted adolescent internalizing behaviors?

Hierarchical linear regression was utilized to assess research question 7. Results for this analysis are reported on Table 11. Step 4 was of most interest when exploring the role of parental awareness of race as a moderator of the linear relationship between discrepancy in family conflict and adolescent internalizing behaviors. The addition of the interaction term (Discrepancy in Family Conflict X Parental Awareness of Race) in step 4 did not statistically significantly add to the prediction of adolescent internalizing behaviors ($\Delta R^2 = .001$, $F_{1,60} = .110$, $p = .74$).

Table 11

Parental Awareness of Race as a Moderator of the Link between Discrepancy in Family Conflict and Internalizing Behaviors

Model	1	2	3	4
Age	-.083	-.053	-.044	-.040
Race				
Asian	ref	ref	ref	ref
African American	-.057	-.115	-.099	-.104
Latino	.016	-.026	-.002	-.007
Gender				
Female	ref	ref	ref	ref
Male	-.098	-.093	-.137	-.137
Family Conflict		.276*	.412**	.413**
Discrepancy in Family Conflict			-.350**	-.149
Parental Awareness of Race			.032	.028
Discrepancy in Family Conflict X Parental Awareness of Race				-.204
ΔR^2	.025	.072	.100	.001
$\Delta R^2 F$	.414	5.045*	3.808*	.110
R^2	.025	.097	.198	.199
Model F	.414	1.361	2.147	1.865

* $p < .05$, ** $p < .01$, *** $p < .001$

Chapter 5: Discussion

This chapter summarizes the major findings of the study and places them in the context of existing literature on transracial adoption and discrepancy in adolescent-parent perceptions of the family. Notable findings are explored in more detail. Implications for theory and clinical applications are suggested. Limitations of the current study are noted and directions for future research are recommended.

Summary of Findings

One of the goals of the current study was to examine how similarly transracially adopted adolescents and their parents view their family. Extant literature on discrepancy in adolescent-parent perceptions of the family suggests adolescents typically view their family more negatively than their parents (Feldman et al., 1989; Ohannessian et al., 1995, 2000). The findings of the current study only partially coincided with prior research. As expected, transracially adopted adolescents viewed their family as less cohesive than their white parents, although the effect size was fairly small. This difference in views of family cohesion is similar to that previously found for adolescents and their parents in non-adoptive families (Feldman et al., 1989; Noller & Callan, 1986; Ohannessian et al., 1995; Stuart & Jose, 2012). Contrary to expectations, adolescent and parent perceptions of family conflict did not differ. This result confirms findings from literature suggesting little discrepancy in adolescent and parent perceptions of family conflict in non-adoptive families (Smith & Forehand, 1986; Stuart & Jose, 2012), but contradicts research finding adolescents view their family as more conflictual than their parents in non-adoptive families (Noller et al., 1992).

In addition to examining the shared and discrepant views regarding the family maintained by transracially adopted adolescents and their parents, this study sought to answer the question of whether these perceptual discrepancies are related to transracial adoptee outcomes. The lack of a link between discrepancy in cohesion and outcomes emphasizes that adolescent self-esteem, internalizing behavior, and externalizing behavior do not seem to be related to whether or not they and their parents had a shared perception of family cohesion. However, a moderate level of discrepancy in adolescent-parent perceptions of family conflict was found to be related to higher adolescent self-esteem and less internalizing behaviors. So although adolescents and parents were generally found to maintain similar views of family conflict, when they did maintain some discrepancy in their views of family conflict, it was related to more positive adolescent development. It is important to caution against the assumption that these relationships are robust given the effect sizes of these relationships were fairly small. Interestingly, the association was not dependent upon whether the parent or the adolescent child viewed more conflict in the family, suggesting discrepancy itself and not the direction of the discrepancy is of importance. Supplemental analyses offered support for this point. When comparing families in which the parent reported more conflict than the adolescent and families in which the adolescent reported more conflict than the parent, adolescent reports of self-esteem ($F_{1,59} = 2.67, p = .11$) and internalizing behaviors ($F_{1,59} = .29, p = .60$) did not significantly differ. Table 12 (found in Appendix J) reports the means.

Prior findings on the association between adolescent-parent discrepancy in perceptions of family functioning and adolescent outcomes are mixed. Although some

evidence for the adaptive function of discrepancy in perceptions of the family has been provided by prior literature (Carlson et al., 1991; Holmbeck & O'Donnell, 1991; Ohannessian et al., 2000), most of the prior research runs counter to the findings of the current study by linking higher levels of discrepancy to poorer adolescent outcomes (Carlson et al., 1991; Ohannessian et al., 1995, 2000; Stuart & Jose, 2012).

In addition to exploring the linear relationship between discrepancy in adolescent-parent perceptions of the family and adolescent outcomes, the current study investigated possible curvilinear relationships. The literature has noted the adaptive and maladaptive impact of discrepancy in perceptions of the family on adolescent development (Ohannessian et al., 2000). Therefore, a curvilinear relationship was tested because it was thought it might better explain the relationship between discrepant views and adolescent outcomes. Contrary to expectations guided by the Circumplex Model, curvilinear relationships between discrepancy in perceptions of the family and adolescent outcomes were not found. Although theoretically surprising, these findings coincide with previous empirical investigation of the curvilinear assumptions of the Circumplex Model, which provide support for linear relationships as opposed to curvilinear relationships (Anderson & Gavazzi, 1990).

To tease out the unique contribution of discrepancy in perceptions of the family in understanding adolescent outcomes, the current study included adolescent views of family cohesion or family conflict as a control variable. When examining the unique contribution of discrepancy in family cohesion on adolescent outcomes, individual reports of family cohesion were controlled. In regressions examining discrepancy in family conflict, individual reports of family conflict were controlled. Not surprisingly,

higher levels of family cohesion were associated with positive outcomes for adolescents, specifically higher self-esteem, less internalizing behaviors, and less externalizing behaviors. Additionally, lower levels of family conflict were associated with lower internalizing and externalizing behaviors. In some instances, discrepancy in perceptions added uniquely to understanding adolescent outcomes above and beyond adolescent views of the family. As reported earlier, this was the case for the relationship between discrepancy in family conflict and adolescent self-esteem and internalizing behaviors. However, for all other cases, discrepancy in perceptions of the family did not add uniquely to understanding adolescent outcomes above and beyond controls. Perhaps, if previous research had controlled for views of the family maintained by each family member prior to considering the unique influence of discrepancy in adolescent-parent perceptions of the family, some of the statistically significant findings would be weaker or unfounded.

To understand the association between discrepant family views and adolescent outcomes in the context of transracial adoption, the current study explored the role of parental awareness of race as a factor unique to transracial adoptive families that may influence adolescent outcomes, and the relationship between perceptual discrepancy and outcomes. Surprisingly, given the emphasis on racial awareness as the foundation for transracially adoptive parent cultural competence (Vonk, 2001), transracial adoptee outcomes were not related to their parents' awareness of race. Additionally, parental awareness of race did not moderate the relationship between discrepancy in perceptions of family and adolescent outcomes.

Notable Findings

Implications for theory.

One of the strengths of the current study was the utilization of theory to inform conceptualization and expectations regarding the relationship between discrepancy in perceptions and adolescent outcomes in the context of transracial adoption. Of particular interest was the novel application of the Circumplex Model to the discussion of balancing shared and discrepant views of the family to promote successful adolescent development (Olsen et al., 1983). Given none of the hypothesized curvilinear relationships were supported, the developmental appropriateness of a balance between shared and divergent views of the family grounded in the Circumplex Model may be called into question. Therefore, perhaps a moderate amount of discrepancy in perceptions of the family is not optimal for adolescent development compared to the extremes.

In order to make this claim, however, investigation of how participating families fell along the continuum of level of discrepancy was needed. When prior studies testing the principles of the Circumplex Model did not find support for the curvilinear relationship, this surprising finding was in some cases attributed to a lack of families being on the extremes of family cohesion or family adaptability (Anderson & Gavazzi, 1990). Although participating families differed on their level of discrepancy in perceptions, perhaps families did not fall into the extremes of either low discrepancy (shared views) or high discrepancy (divergent views), detracting from the ability to detect differences in adolescent outcomes along this continuum. To determine whether this was occurring in this sample, the distributions of discrepancy in adolescent-parent perceptions of family cohesion and family conflict were examined.

When looking at the distributions, it is clear that the extreme scores associated with highly discrepant views are lacking and that both cohesion and conflict are skewed toward most of the sample maintaining shared views. Figure 2 and Figure 3 (See Appendix K) provide visual evidence of the tendency for the majority of families to have low discrepancy and very few families to have high discrepancy in views of family cohesion and family conflict. Adolescent-parent discrepancy scores potentially could range from 0 to 9, with higher numbers indicating larger discrepancies. Among participating families, 76% and 67% maintained difference scores of 2 or less for cohesion and conflict, respectively. No families scored an 8 or 9, only three families scored above a 6 on discrepant views of cohesion, and only one family scored above a 6 on discrepant views of conflict. Therefore, the lack of families representing highly discrepant views may have contributed to an inability to detect differences in adolescent outcomes for families along the discrepancy continuum. Although unable to be tested in this study, perhaps the curvilinear relationship predicted by the Circumplex Model would hold if the sample had families falling into both extremes on the discrepancy continuum.

Another challenge to uncovering the curvilinear relationship posited by the Circumplex Model is that the assumed association between the extremes and dysfunction may simply not be correct. In particular, the critique of the Circumplex Model focuses on the extreme of high family cohesion and questions whether this extreme is indicative of a functional or dysfunctional family. The Circumplex Model suggests that families with extremely high cohesion are dysfunctional (Olson et al., 1983), and these families are often clinically referred to as enmeshed. However, extreme closeness may actually be

functional, and therefore a curvilinear relationship may not be found because having high family cohesion is not problematic, but is in fact beneficial (Baer, 2002).

Application of the critique to this study becomes relevant when thinking about the expectation that the extreme of low discrepancy in perceptions (shared views) will be related to poorer outcomes according to hypotheses based in the Circumplex Model. Perhaps families in which both the adolescent and the parent report high levels of cohesion (low discrepancy in perceptions), it is not problematic. Instead, perhaps when teenagers and parents have a shared view of high family closeness, it is indicative of a positive family environment which leads to positive outcomes for adolescents. Similarly, perhaps it is indicative of a positive family environment when both adolescent and parent report low levels of conflict.

Supplemental analyses were conducted to test this possible explanation. First, each family member was categorized as low, medium, or high on family cohesion and family conflict based on their individual reports of family cohesion and family conflict, respectively. Categorization was based on cutoffs determined by plus and minus one standard deviation from the mean³. Table 13 (Found in Appendix L) provides additional information about the low, medium, and high cutoffs for family cohesion and family conflict for both adolescents and parents. Based on these cutoffs, 24% of adolescents and 36% of parents were high in cohesion, while 17% of adolescents and 27% of parents were low on conflict. Second, families were categorized as high/high, high/low, or low/low based on the adolescent and parent individual categorizations for family

³ Please note, the cutoff for high cohesion based on one standard deviation from the mean for both adolescent and parent exceeded 18, the highest possible rating for family cohesion on the FES (Moos & Moos, 1994). Therefore, in order to categorize high reports of family cohesion, any family member reporting an 18 was considered high on cohesion.

cohesion and family conflict, respectively. Again, of most interest in exploring the validity of the critique are high/high families on family cohesion and the low/low families on family conflict. In 13% of families, both adolescent and parent reported high cohesion. In 7% of families, both adolescent and parent reported low conflict. Third, supplemental analysis explored whether adolescents in these families had better developmental outcomes compared to other families. If adolescents raised in families in which both family members reported high cohesion have better outcomes than adolescents in other families, then the extreme of adolescent and parent sharing a perception of the family as very close, sometimes referred to as enmeshment, is not indicative of a negative family environment. A similar conclusion could be made if adolescents raised in families in which both family members reported low conflict have better outcomes than adolescents in other families. This would offer a possible reason the curvilinear relationships hypothesized in this study were unsupported.

The supplemental analyses revealed no difference in adolescent self-esteem [$t(68) = -.163, p = .10$], internalizing behaviors [$t(68) = .685, p = .50$], or externalizing behaviors [$t(68) = 1.478, p = .14$] between families in which both family members reported high family cohesion and all others. Similarly, families in which both family members reported low family conflict did not differ in adolescent self-esteem [$t(68) = 1.385, p = .17$], internalizing behaviors [$t(68) = -1.130, p = .26$], or externalizing behaviors [$t(68) = .835, p = .41$] compared to others. Table 14 (found in Appendix M) provides the means for adolescent outcomes for each group. Therefore, the lack of support for a curvilinear relationship in this study is probably not due to the possible explanation that shared

perceptions of the family as cohesive or non-conflictual are indicative of a positive family environment.

Another possible reason this study did not find support for the curvilinear relationship between discrepancy in perceptions and adolescent outcomes is due to a psychometric issue. Because the polynomial term of discrepancy in perceptions was created from the linear term of discrepancy in perceptions, multicollinearity between these two terms exists. Multicollinearity between the linear and the polynomial terms for discrepancy in perceptions of the family may have detracted from the ability to detect the significance of the curvilinear relationship. To see if this was the case, exploratory supplemental analyses examined the curvilinear relationship without inclusion of the linear term of discrepancy in perceptions of the family. Hierarchical regressions included three steps. In step 1, the developmental outcome was regressed onto the control variables (adolescent age, gender, and race). Adolescent perceptions of the family was added in step 2 and the polynomial term for discrepancy in perceptions was added in step 3. Examination of the added predictive value (ΔR^2) when the polynomial term was added into the model revealed no significant findings. The results for these analyses can be found in Tables 15 through 20 (Found in Appendix N). Since the curvilinear relationship continued to be unfounded when the linear term was left out of the model, multicollinearity does not appear to be the reason the curvilinear relationships were unsupported in the original analysis.

Based on the findings, discrepancy in perceptions of the family does not appear to operate in the fashion that the Circumplex model would suggest, although the data also do not support a major critique of the Circumplex model. Further, it is difficult to assess

the model fully given the lack of families with extremely high discrepancy scores. However, this study was also informed by developmental theories suggesting the developmental appropriateness of teenagers forging perspectives different from their parents. This difference may be a marker of the adolescent's individuation from the family unit. The findings provide some support for the adaptive quality of differences in perceptions of the family posited by the developmental theories (Grotevant & Cooper, 1986; Holmbeck & O'Donnell, 1991). When adolescents and parents viewed the level of conflict in the family somewhat differently, teenagers appeared to benefit developmentally, specifically in their views of self-worth and internalization of distress. Since the distribution of discrepancy in family conflict revealed the tendency for families to have no or low/moderate discrepancy in their perceptions, then perhaps a moderate amount of discrepancy is tied to better outcomes, even though the findings were only significant for the linear test. The relationship between high levels of perceptual discrepancy and adolescent development remains unclear because participating families did not fall on this extreme. Although unable to be tested in this study, perhaps adolescent outcomes would be most healthy in families with high levels of discrepancy in family conflict, lending additional support to the developmental theories. Or perhaps adolescent outcomes would be poorer in families with high levels of discrepancy in family conflict, lending support to the curvilinear relationships posited by the Circumplex Model.

It is important to note that a life cycle developmental approach is process oriented, meaning the theory proposes successful navigation of developmental tasks is accomplished due to necessary changes within the family system, such as modification of

family boundaries to allow for adolescents to become more autonomous in the context of a supportive family (Carter & McGoldrick, 1999; Duvall, 1957). Although the current study conceptualizes discrepancy in adolescent-parent perceptions of the family as a marker of the adolescent's bid for autonomy in the context of support, which is considered adaptive, the dynamic aspects of adaptation related to change in family boundaries was not measured directly.

Additionally, conceptualizing discrepancy in adolescent-parent perceptions of the family as a marker of the adolescent's bid for autonomy in the context of support may be called into question. This conceptualization implies volition on the part of the adolescent to seek out autonomy by actively forging perspectives that differ from his or her parents. However, it is also possible that differences in how the adolescent and parent view the family are due to more than just the adolescent desiring autonomy and acting on it. Also, conceptualizing a balance in shared and discrepant views of the family as optimal for adolescent development implies action on the part of the family to strike a balance, and this may not be the case.

Adolescents and parents may view their family differently due to processes beyond their control. For example, it may be adolescents and parents maintain discrepant views because the ways in which they process information are different. Neurocognitive research demonstrates physiological differences in brain chemistry for teenagers and adults, which are linked to differences in information processing (Chamberlain, n.d.). For example, when processing information, the frontal lobe, the part of the brain related to reasoning and language, is activated for adults, whereas the amygdala, the part of the brain related to emotion, is activated for teenagers. Therefore, adolescents tend to view

their experiences more emotionally and tend to respond with more intense emotion, than do adults. Although this study emphasizes the role of discrepant views as a marker of individuation, it may actually be that when adolescents and parents view their family differently this happened beyond their awareness and action.

Differences in family cohesion and family conflict.

Interestingly, discrepancy in perceptions of family conflict was related to transracially adopted adolescent outcomes, but discrepancy in perceptions of family cohesion was not. The question then becomes, why was the expected relationship found for views of family conflict but not for views of family cohesion? One possible explanation arises from considering the unique role views of family cohesion may play in transracially adoptive families. It may be that the transracially adoptive families in this study are particularly cohesive and healthy, as demonstrated by reports of high cohesion in the family. The adoptive family life cycle emphasizes that normative developmental tasks and accommodations in family boundaries are more complicated in transracially adoptive families than non-adoptive families due to themes of loss and abandonment (Brodzinsky et al., 1995; Hajal & Rosenberg, 1991), and more challenging than same-race adoptive families due to racial-ethnic difference (Steinberg & Hall, 2000). Perhaps, armed with the knowledge of the challenges their family faced due to its adoptive and interracial nature, white parents worked hard to build closeness and support among family members. White adoptive parents may create a family environment that emphasizes cohesiveness, in which family members engage in supportive behaviors and adopt a family identity or sense of belonging, as a way to counteract the differences among family members.

However, it may also be that parents and adolescents in transracially adoptive families have an investment in representing their families as highly connected, whether or not these representations truly reflect their perceptions. White adoptive parents and their racial minority teens may have a stake in representing themselves as highly cohesive to compensate for disconnection due to racial-ethnic differences among family members. Additionally, perceptions of high cohesion may combat transracially adoptive adolescent fears of abandonment by the adoptive family instilled by loss of the birth family. It may be socially desirable for transracially adopted adolescents and their parents to report high connectivity, and unacceptable to report low family cohesion or levels of family cohesion different from other family members. Therefore, their reports may be biased, not accurately reflecting their true perceptions of connectedness in their families, explaining why discrepancy in perceptions of family cohesion was unrelated to adolescent outcomes.

However, viewing conflict similarly or differently may not operate in this way for transracially adoptive families. Given family conflict is deemed normative as adolescents strive for independence and parents strive to maintain control (Berger, 2011), it may be more acceptable to see family conflict differently from one another. Transracially adoptive family members may feel freer to respond based on their own perceptions of conflict, more accurately representing their views, compared to feeling constrained to represent high cohesion. Or, perhaps family conflict is less wrapped up in the identity of the transracially adoptive family compared to family cohesion. Family conflict is a normative challenge for all families with adolescents, whereas a sense of belonging in the face of difference is a unique challenge for transracially adoptive families with

adolescents. Transracially adoptive parents may not target reduction of family conflict in the same way they have focused on enhancing family cohesion.

Implications for adolescent development in transracially adoptive families.

Findings from this study have clear implications for understanding adolescent development in the context of transracial adoption. One of the first questions related to understanding adolescent development in the context of transracial adoption may be how are these teenagers fairing on markers of successful adolescent development. It does appear that the transracially adopted adolescents participating in this study on average maintained normal levels of self-esteem, based on the cutoff established to distinguish adolescents with normal self-esteem from those with low self-esteem (Bagley, Bolitho, & Bertrand, 1997; Rosenberg, 1965). In addition, when compared to the norms of non-referred adolescent boys and girls on the YSR (Achenbach & Rescorla, 2001), the transracially adopted adolescent reports of internalizing and externalizing problem behaviors were similarly reflective of low levels of problem behaviors.

The next question reflects the overarching purpose of this study. How are family factors associated with the wellbeing of transracially adopted adolescents? This study examined shared and discrepant views of the family as a family factor. Transracially adopted adolescents and their white parents tended to view the family similarly, however generally these shared views did not appear to be beneficial or harmful in relation to adolescent development. This was particularly the case for discrepant views of family cohesion. As discussed in the section exploring why there may have been differences in the influence of discrepancy in family conflict and family cohesion on adolescent development, perhaps viewing the family as highly cohesive is socially desirable in

transracially adoptive families. Therefore, discrepancies in family cohesion may not have been accurately portrayed by the participating families. On the other hand, the high levels of cohesion expressed by adolescents and parents may be reflective of the efforts of white parents to create a close and supportive family environment in the face of unique challenges of difference. Again, family cohesion may serve to solidify family unity in the context of visible dissimilarity due to racial-ethnic differences. High cohesion among family members may serve a centripetal force to combat the centrifugal forces of racial and biological difference. This possible compensation, whether biased or accurately reflecting the success of white parents to create a cohesive family unit, was found to be neither beneficial nor harmful in relation to adolescent development, and deserves additional attention in future studies. The lack of relationship between discrepancy in cohesion and adolescent outcomes may be better understood given this dynamic. However, it is important to note that the adaptive quality of discrepancy in conflict on adolescent outcomes was expected and some discrepancy was found to be related to outcomes in this study, specifically for self-esteem and internalizing behaviors.

To understand family factors unique to the context of transracial adoption, parental awareness of race, the foundational component of transracially adoptive parents' cultural competence was added into the picture. Surprisingly, parental awareness of race was not related to adolescent outcomes and did not moderate the relationship between discrepancy in perceptions of family and adolescent outcomes. Although the findings do not offer support for the importance of parental awareness of race, these findings should not be utilized to undermine the value of parental awareness of race in transracially adoptive families.

To aid in the interpretation of these findings, the average parental awareness of race for the participating parents was examined. On average, participating parents scored 90.20 ($SD = 16.80$) on the CoBRAS (with possible scores ranging from 20-120), reflecting high awareness of race in the participants. Most parents were highly racially aware and there was a dearth of parents endorsing low awareness of race. Therefore, the minimal variability across levels of awareness of race, in particular low awareness of race, may have contributed to difficulty in detecting associations between parental awareness of race and adolescent developmental outcomes.

Also to aid in the interpretation of these unexpected findings, the average parental awareness of race of participating parents was compared to the norms for the CoBRAS (Neville et al., 2000). In this study, the CoBRAS was scored such that higher scores were indicative of higher awareness of race for interpretation purposes. However, in the CoBRAS construction and validation article (Neville et al.), the CoBRAS was scored such that higher scores were indicative of more colorblindness, that is, less awareness of race. Therefore, in order to compare the sample of transracially adoptive parents with the white participants described by Neville et al., the CoBRAS in this study was rescored for higher scores to reflect less awareness of race for this supplemental analysis (more colorblindness). The transracially adopted parents in this study had an average colorblindness score of 49.79 ($SD = 16.80$) well below the averages of colorblindness in white samples reported by Neville et al. which ranged from 62.06 ($SD = 14.61$) to 68.44 ($SD = 11.76$).

The participating adoptive parents were found to be more aware of race than white adults in general, and this may be the case for a couple reasons. One, it may be that

white adults who choose to build their family by adopting transracially are at the onset more racially aware than white adults in general. Perhaps parents who adopt transracially view themselves as equipped to take on the challenges of raising a racial minority child because of this deeper understanding of the construction of race and the challenges of navigating minority status in our society. Second, white adoptive parents' awareness of race may deepen over the course of raising a racial minority child. For example, perhaps as parents are exposed to the discrimination experiences of their racial minority child, or of their transracially adoptive family, their awareness of race and the way it can structure one's experiences in life may deepen. Or as another example, as their adopted children engage in their culture of origin or befriend other racial minority youth, transracially adoptive parents may be exposed to other races and their experiences, thereby broadening their awareness of race.

Critique of literature on discrepancy in adolescent-parent perceptions of family functioning.

To date, little research on the association between discrepant perceptions of family functioning and adolescent outcomes has considered the role of individual reports of family functioning prior to considering the unique influence of discrepant views. The previous literature assumes discrepancy in adolescent-parent perceptions of the family is a unique construct above and beyond how parents and adolescents individually view their family, and does not actually assess whether the construct of discrepancy in perceptions adds uniquely to understanding adolescent outcomes. The question of whether discrepancy in perceptions is an appropriate or even necessary construct in understanding adolescent development arises if individual views of the family similarly explain

adolescent outcomes (De Los Reyes, 2011; Stuart & Jose, 2012). If discrepancy in perceptions does not add to the understanding of adolescent outcomes, then why not utilize individual reports as opposed to discrepancy in perceptions to understand adolescent outcomes? Teasing out the role of discrepancy in adolescent-parent perceptions of the family from individual reports of the family is important to more clearly understand the link between differences in views of the family and adolescent development.

To address this task and account for the limitation of prior research, this study explored the unique contribution of discrepancy in adolescent-parent perceptions above and beyond individual accounts of family functioning by controlling for adolescent perceptions of family functioning. The decision to control for adolescent perceptions of family functioning was made because 1) individual views of the family were found to be related to discrepancy in perceptions of the family, thereby confounding the relationship between discrepancy in perceptions and adolescent outcomes, and 2) this was found to be the case for both family cohesion and family conflict, respectively. Therefore, family cohesion was controlled for when examining the relationship between discrepancy in family cohesion and adolescent development and family conflict was controlled for when examining the relationship between discrepancy in family conflict and adolescent outcomes. The results from this study were mixed. At times, discrepancy in adolescent-parent views added uniquely to the understanding of adolescent outcomes, and at other times, discrepant views did not contribute to adolescent outcomes above and beyond individual reports of family functioning.

A recent study by Stuart and Jose (2012) also addressed this limitation of prior research, and their findings suggest discrepancy in perceptions of family functioning is a substantive and unique construct influencing child wellbeing. Similar to the present study, the researchers tested whether the predictive effects of discrepancy in perceptions of the family were a result of individual parent and adolescent reports of the family. After finding discrepancy in perceptions between adolescent and parent reports of the family predicted adolescent wellbeing, the researchers conducted a supplemental test to examine if individual reports contributed to understanding adolescent wellbeing. A hierarchical analysis was conducted. The first step included adolescent age and gender and adolescent wellbeing at time 1, and the second step included individual reports of the five family dynamics variables studied, including cohesion, conflict, autonomy, mutual activities, and identity. Only adolescent perceptions of family conflict and autonomy significantly added to the explanation of adolescent wellbeing, while none of the other individual perceptions maintained by adolescents and parents predicted adolescent outcomes at time 2. Therefore, the researchers concluded that the influence of the discrepancy in perceptions of the family on adolescent wellbeing found was not the result of the independent effects of adolescent and parent views. Instead, discrepancies uniquely contributed to the prediction of adolescent wellbeing.

In a related literature on discrepancy in adolescent-parent perceptions of child psychopathology, the question of whether discrepancies in perceptions of informants explain child outcomes above and beyond self or parent reports has been raised (De Los Reyes, 2011). The developing literature suggests discrepancy in perceptions among multiple informants does have unique explanatory power and offers substantive

information above and beyond individual reports (De Los Reyes, 2011; Reynolds, MacPherson, Matusiewicz, Schreiber, & Lejuez, 2011).

The mixed findings of the current study add to the evolving and complex discussion regarding the conceptualization of discrepancy in perceptions as a valuable construct. Future discrepancy research should continue to tease out the unique contributions of discrepant views of family functioning from the independent effects of individual reports of the family in order to gain a clearer understanding of adolescent outcomes.

Clinical Applications

The findings from the study have potentially important implications for transracially adoptive families and adoption professionals. The developmental tasks of adolescence are complicated for adoptees, particularly for those who are of a different race than their adoptive parents. Riley (2006) posited six “stuck spots” adopted adolescents face when working to achieve developmental goals, and provides guidance to adoption professionals to assess and address them. Two “stuck spots” resonating clearly with this study’s findings are that of difference and permanence. Biological, racial, and cultural differences are inherent in transracial adoption (Grotevant et al., 2000; Riley, 2006). Additionally, transracially adopted adolescents have experienced loss related to their birth family and birth culture, and may question the stability of the adoptive family. At a time when adolescents are developmentally striving for autonomy in the context of connectedness to the family (Anderson & Sabatelli, 2002; Grotevant & Cooper, 1986), these differences may hinder or facilitate this process (Riley, 2006).

A primary goal when providing services to transracially adoptive families is to facilitate a family environment conducive to meeting the needs and promoting the development of transracially adoptees. Adoption professionals should be aware of and openly acknowledge the influence of difference and permanence on adolescent development in transracially adoptive families. To this end, clinicians should assess similarities or differences in perceptions of the family and attend to how these discrepant views influence family interactions and adolescent development. The findings emphasize the role of discrepancy in perceptions of family conflict. Although transracially adopted adolescents and their parents tended to view the levels of family conflict similarly, when they maintained some discrepant views of family conflict this was related to positive outcomes for adoptees. Clinicians may normalize conflict in the family and help parents to not be worried about some difference in how they and their adolescents view the level of conflict because these differences are related to successful adolescent development. However, this relationship should be interpreted cautiously since the effect size was fairly small. Additionally, racial differences among family members may challenge the unity of the family, and therefore white adoptive parents and their racial minority child may attempt to compensate for differences by finding other aspects of similarity to solidify the family as a unit, such as viewing the family similarly or reporting high levels of connectedness. Clinicians may also tune into the possibility that white parent compensate for racial differences within the family by facilitating a cohesive family unit, and explore the mechanisms utilized by families to solidify a connected and supportive family unit.

The challenge for clinicians is helping families balance these shared and discrepant views to best support adolescent individuation. Although this study attempted

to gain a clearer understanding of this balance, the optimal balance (if one exists) for adolescent development and how a balance is achieved remains unclear. This study supports the finding of many previous ones (Fosco, Caruthers, & Dishion, 2012; Laursen & Collins, 2009) that one aspect of the family environment that clearly is conducive to a healthy adolescent outcomes is family cohesion. Clinicians should attend to the levels of family cohesion and develop interventions designed to enhance family cohesion as this was related to better developmental outcomes. Generally, the findings emphasize the importance of gathering information about family functioning from both parents and youth to understand adolescent developmental outcomes. Whether the family members maintain shared or discrepant views of the family, the collection of information from multiple family members acknowledges the value of each person's viewpoint. Adoption professionals may be able to engage adolescents in treatment and services by providing them the opportunity to disclose personal perspectives, as opposed to relying primarily or solely on parental reports. Whether or not the adolescent agrees with other family members, this technique reinforces the adolescent's developmental need to individuate from the family by acknowledging the potential distinctiveness in their perspectives. Eliciting information from all family members, being aware of differences in perspectives, and conveying respect for each person's views may facilitate the establishment of a balanced therapeutic relationship (Achenbach, 2011; Epstein & Baucom, 2002). Additionally, by conducting a multi-reporter assessment, adoption professionals and clinicians may gain a broader understanding of the family and adolescent development, in some cases above and beyond individual views of the family (Stuart & Jose, 2012). It has been suggested that intergenerational discrepancies may be a

latent indicator of the quality of the relationships (Moos & Moos, 1994; Olson et al., 1983), and therefore understanding the views maintained by the family members can be used to create interventions intended to enhance or minimize discrepancies.

Limitations of the Study

This study had several limitations to consider when interpreting and reflecting on the implications of the findings. Since data were collected at one point in time, the study was cross-sectional. Therefore, findings from the current study regarding the influence of perceptions of the family and discrepancy in perceptions on adolescent outcomes cannot verify a temporal order, such that one caused the other. Therefore, a causal link cannot be established. For example, the current study found family cohesion predicted higher levels of adolescent self-esteem. However, it could be that having higher self-esteem enabled adolescents to be and feel more connected to their families. Additionally, the bidirectional influence of discrepancy in perceptions and adolescent outcomes could not be assessed. A longitudinal design would enable exploration of changes in discrepant views over the course of adolescence and this bidirectional influence, in addition to furthering our understanding of how parental awareness of race may evolve as children age and traverse adolescence.

A second set of limitations of the study pertain to sampling. The study's use of non-probability sampling to recruit participating families, such as convenience and snowball sampling, resulted in a sample with questionable representativeness of participating families to all transracially adoptive families. The study has limited external validity due to limited ability to generalize the findings from the study to the larger population of all transracially adoptive families. For example, it is unknown if the high

level of awareness of race found in the parents in this study is typical of parents in transracially adoptive families. Additionally, although recruitment efforts specifically targeted non-Asian racial minority youth, in addition to the recruitment of transracially adoptive families in general, over half of the adolescents who participated in the study identified as Asian. The data were largely drawn from international, and primarily Asian adoptees and their parents, as opposed to domestic adoptees and adoptees who identify as African American or Latino. Although it is not clear how this may influence the findings, this limitation did not allow for the exploration of differences based on race, ethnicity and nation of origin.

An additional concern related to the composition of the sample relates to the gender of participants. Overwhelmingly, mothers were the participating parent in the parent-adolescent dyad. Only 10% of participating parents were fathers. The imbalance may be due to recruitment efforts focusing on organizations providing adoption services. In general, women tend to maintain more positive views of seeking help from professionals (Nam et al., 2010) and mothers often serve as the liaison between service providers and the family. Since information about the study was disseminated to families via organizations providing support and services to adoptive families, transracially adoptive mothers may have had more opportunity to be in contact with information about the study than fathers, and therefore were more likely to participate in the study.

The issue regarding the composition of the sample refers also to the gender of participating adolescents. Approximately three-fourths of the participating adolescents were female. Since internalizing behaviors in adolescents are more common in girls than boys (McGuinness, Dyer, & Wade, 2012), perhaps the reason significant findings were

found for internalizing behaviors and not externalizing behaviors was due to this gender imbalance. In terms of perceptual discrepancy, prior research found the perceptions of family functioning maintained by sons were more discrepant with their parents' views compared to the views maintained by daughters, and suggest this gender difference may be due to differential developmental expectations for boys and girls (Ohannessian et al., 1995). For example, the authors speculate parents expect more autonomous behavior from sons and more dependent behavior from daughters. Therefore, parents may encourage the independence of sons more than daughters, reflected in greater discrepancy in perceptions for sons. Applied to this study, perhaps the small level of discrepancy in adolescent-parent perceptions of the family was partly due to having a sample primarily consisting of daughters.

Given the gender of participating parents and adolescents, essentially many of the parent-adolescent dyads in this study were mother-daughter. One can argue that the mother-daughter relationship is different than the father-son, father-daughter, and mother-son relationships in potentially important ways. Individuation of adolescent daughters from their mothers may be complicated by the conflicting messages sent to daughters. During adolescence youth are becoming more autonomous from the family. However, girls are doing so in the context of expectations for women to remain relationally connected. Additionally, daughters may strongly identify with their mothers due to being of the same gender. Although it is unclear how this may influence the findings, it is important to note that the findings from this study may best apply to the mother-daughter relationship.

Prior literature on discrepancy in adolescent-parent perceptions of the family has explored differences among the parent-adolescent dyads (Carlson et al., 1991; Ohannessian et al., 1995, 2000). Although no clear patterns have emerged from the literature, some support for differences among the dyads have been found. For example, in one study, adolescent-mother similarities in perceptions of family relationships were related to adolescent higher self-competence, but in adolescent-father dyads discrepancies in perceptions of the family were related to adolescent higher self-competence (Carlson et al., 1991). In another study, differences in perceptions of the family and adolescent emotional adjustment were unrelated in father-son dyads, and only differences in perceptions of family cohesion were predictive of anxiety for sons in mother-son dyads. The findings for daughters were more robust than for sons. More discrepant views of family adjustment between mothers and daughters, and more discrepant views of family cohesion and adjustment between fathers and daughters were predictive of emotional adjustment for daughters. On the other hand, Ohannessian and colleagues (2000) did not find the gender of the parent in the dyad to influence the strength of the relationship between discrepancy in adolescent-parent perceptions of the family and adolescent self-competence. Findings from the literature suggest gender of the parent and the adolescent are important to consider when examining the relationship between discrepancy in perceptions and adolescent outcomes. Although it is unclear how the gender makeup of the sample of this study influenced the findings, it is important to note the gender imbalance.

Efforts to recruit a larger sample size were undertaken, however a threat to statistical conclusion validity is the small sample size which contributes to low statistical

power. Statistical power refers to the ability of the study to detect an effect of perceptions of the family on adolescent outcomes when the effect truly exists. Several of the results examining linear and curvilinear relationships between discrepancy in adolescent-parent perceptions of the family and adolescent outcomes were insignificant, which may be due to insufficient power.

Since adolescent and parent views of the family were related to one another and because a main focus of the study is adolescent individuation, the decision was made to utilize only adolescent views of the family as a control variable when looking at the association between discrepancy in perceptions and adolescent outcomes. Although the selection to utilize adolescent report over parent report made conceptual sense, this could have introduced reporter bias. The association between perceptions of the family and adolescent outcomes may be due to a reporter effect since both constructs were assessed utilizing adolescent report. Also, the study relies on self-reported online data. It is certainly possible that the respondents are not accurate reporters of the phenomenon in question. However, the problem is minimized somewhat for this study since a primary focus was to understand how each family member views the family. Therefore accuracy may not be as important in this study.

These findings begin to shed light on how adolescents and parents view their family, and the role differences in their perceptions have on adolescent development in the unique context of transracial adoption. Interpretations of the findings are made based on this unique quality of participating families. However, due to a lack of a comparison group, either with same-race adoptees or non-adopted adolescents, it is difficult to tease out if these findings are unique to transracial adoptees and their families. A recognition

and consideration of these limitations is important when interpreting the results of the study, and in planning for future research.

Future Research

Future research may build on and address the limitations of this study to enhance the understanding of the influence of family on adolescent development in the context of transracial adoption. Future research on adolescent development in transracial adoptive families should be conducted utilizing larger sample sizes. The unsupported hypotheses may be a function of low power. Conducting the study with a larger sample size may reveal more of an influence of discrepancy in perceptions on adolescent outcomes if the influence truly exists in the population. Additionally, a larger sample size would enable an exploration of relevant differences within transracial adoption experiences, such as race or culture of origin of the child, adoption type (i.e., international, domestic), and adoption openness (i.e., open, closed). Examination of differences within transracially adoptive families would add a more nuanced understanding of how discrepancy in perceptions of the family is related to transracial adoptee development. Efforts to recruit a comparison group, either same-race adoptees or non-adopted adolescents, would enable researchers to more clearly understand the unique qualities of adolescent development in transracially adoptive families and universal aspects of adolescent development.

In addition, future empirical investigation of discrepancies in adolescent-parent perceptions of family functioning should utilize longitudinal designs in order to capture change over the course of adolescence, establish temporal order, and explore the possible bidirectional influence of discrepant views and adolescent outcomes. Although adolescence can be viewed as a developmental stage in and of itself, the accomplishment

of developmental tasks differs over the course of the life stage. For example, younger adolescents are embarking on the beginning stages of individuation, whereas older adolescents are theoretically further along in their autonomy development and identity formation. The level of discrepancy in perceptions of the family between adolescents and parents may differ over the course of adolescence due to these developmental differences. Research suggests adolescent views of family functioning shift over the course of adolescence. For example, younger adolescents tend to report more family cohesion than older adolescents (Baer, 2002), and younger adolescents tend to report less conflict than older adolescents (Smith & Forehand, 1986). In the present study, age functioned as a control variable. Although adolescent age generally did not contribute significantly to explaining transracially adopted adolescent outcomes, the changes in views of family functioning over time is important to understanding how discrepant perceptions and adolescent development are related. Exploration over time also has implications for the family life cycle and other developmental theories enabling a better exploration of change over time.

The conceptualization of discrepancy in perceptions as a substantive construct above and beyond individual perceptions should continue to be acknowledged and evaluated in future studies on discrepancy in perceptions. The current study controlled for individual reports of family functioning in an effort to examine the unique contribution of discrepancy in perceptions. This technique may be used in future studies to address the limitation of prior research.

Future research should investigate family factors and adolescent outcomes salient to transracially adoptive families to gain a clearer understanding of the relevance of

discrepant and shared perceptions of the family in this context. As noted numerous times, adopted adolescents face unique challenges associated with their adoption status when navigating the developmental tasks of adolescence. Future research should continue to acknowledge these challenges and assess how adolescent experiences of loss, permanence, and difference influence their individuation efforts. Although the current study did not find a relationship between parental awareness of race and adolescent outcomes, future research should continue to explore the role of parental cultural competence in promoting transracially adopted adolescent development. This study focused on how parents think about race not what they do when raising their racial minority child. Perhaps findings would have been different if racial socialization instead of racial awareness was assessed. Additionally, support for racial socialization as a moderator of the relationship between discrepancy in perceptions and adolescent outcomes in future research may be found. For example, some discrepancy between adolescent and parent views of the family may be related to better adolescent outcomes. However, in the context of some discrepancy, low levels of racial socialization may detract from the benefits of discrepancy on adolescent development. Whereas, high levels of racial socialization in the context of some discrepancy may enhance the benefits for adolescent development.

Additionally, this study explored adolescent outcomes generally utilized as indicators of successful adolescent development, such as self-esteem, internalizing behaviors, and externalizing behaviors. An exploration of adolescent outcomes uniquely relevant to racial minority adoptees, such as ethnic identity or ethnic pride, would serve

to expand the understanding of how discrepancies in adolescent-parent perceptions of the family influence development in this context.

The current study focused on discrepancies in perceptions of general aspects of family functioning, however future research should explore the how transracially adoptive parents and their children view constructs specifically relevant to transracial adoption, for example parental efforts to racially socialize their racial minority child. Transracially adopted young adults often report a disconnect between their needs as racial minority youth and the actions of their parents, in particular regarding their need for racial socialization and their parents deficit in providing skills for handling discrimination and opportunities for connecting with their culture of origin (Samuels, 2009). It would be of interest to study how parents describe their racial socialization practices and how adolescents view their parents' efforts to engage in racial socialization. Perhaps discrepancies in perceptions of racial socialization practices would be more strongly linked to adolescent development in transracially adoptive families than the general perceptions of family functioning explored in this study.

Many of the suggestions posited by Frasch and Brooks (2003) for the use of theory to inform research on transracially adoptive families were utilized, and should continue to be employed by future research. Specifically, several theories aided in the conceptualization of the study and interpretation of findings, and the adoptive family was regarded as a whole as opposed to focusing on just the transracial adoptee or the adoptive parents. Although this study begins to reflect upon the adoptive family life cycle, and how normative developmental tasks and accommodations in family boundaries may be more complicated in adoptive families due to themes of loss and difference (Brodzinsky

et al., 1995; Hajal & Rosenberg, 1991), these intricacies were not directly addressed by this study. In future research and theory development on transracially adoptive families, these relevant themes should be considered more directly. In doing so, adoption researchers can apply and test existing theories, and develop a nuanced understanding of family dynamics and adolescent development in the specific context of transracial adoption.

Conclusion

In conclusion, theoretical and empirical scholarship on transracial adoption would be enhanced by more attention to the issue of discrepancies in adolescent-parent perceptions of family functioning. The research described in this study provides preliminary insight into the adaptive value of discrepant and shared views of the family, and to the complexity of individuation in the context of transracial adoption. Although similar views may serve a stabilizing purpose in transracially adoptive families, some discrepancy in views of the family may be an important contributor to successful adolescent development. If the ultimate goal is to enhance family relationships to facilitate transracially adopted adolescent development, then the complexity of shared and discrepant adolescent-parents views of the family must continue to be examined as a substantive construct contributing to adoptee development.

Appendix A

Recruitment Letter to Organizations

As an organization serving adoptive families, I am writing to seek your assistance in spreading the word about an exciting study. The University of Maryland's Department of Family Science, in conjunction with The Center for Adoption Support and Education (CASE), is conducting a national survey of transracially adopted adolescents and their families. The specific focus of the study is to examine the impact of family characteristics on the overall adjustment, self-esteem and racial identity of racial minority youth adopted by white parents. We believe this research will benefit us in providing better services to the youth and families we serve.

We are currently looking for participants for this important research project and would appreciate your support in distributing information about our study to the families you serve. I have attached additional information about the study, including flyers that can be posted or sent via email.

If you are interested in finding out more about this study or if you have any questions, please feel free to contact Dr. Leigh Leslie at lleslie@umd.edu (301-405-4011) or Katie Hrapczynski at katieh@umd.edu.

Thank you in advance for your help.

Katie Hrapczynski, MS, LGMFT
Doctoral Candidate
University of Maryland
School of Public Health
Department of Family Science
610.348.9208
katieh@umd.edu

Appendix B

Recruitment Information Flyer

Transracial Adoption Study

The University of Maryland's Department of Family Science, in conjunction with The Center for Adoption Support and Education (CASE), are initiating a national survey of transracially adopted adolescents and their families. **We are currently looking for participants for this important research project.**

The specific focus of the study is to examine the impact of family characteristics on the overall adjustment, self-esteem and racial identity of racial minority youth adopted by white parents.

We believe this research will benefit us in providing better services to the youth and families we serve. We encourage you to consider participating.

Who can participate?

If the parent or parents in your family are white and there is a least one racial minority adolescent (currently aged 14-18) who was adopted by the age of 4, you may qualify to participate.

What will I be asked to do?

Both parent and child will be asked to complete an on-line survey that will take approximately 20 minutes. Upon completion, participating adolescents will receive a \$10 iTunes gift card (some restrictions apply).

How do I find out more about the study?

For more information and to see if you qualify, please contact:

Dr. Leigh Leslie
Department of Family Science
The University of Maryland, College Park
301-405-4011, lleslie@umd.edu

Appendix C Recruitment Flyer

The University of Maryland Department of Family Science and The Center for Adoption Support and Education are working together to facilitate this important national study of transracial adoptive families. Be part of cutting-edge research to help families like yours!

Call 301-405
4011



Do you ever wonder...

How can I help my teen cope with racial discrimination?

What is the most effective way to parent a teen that is a different race than me?

When it comes to my child of color's self-concept, does living in a diverse community make a difference?

If you're an adoptive parent of a teen, this might be your opportunity to be part of a national, cutting-edge research project that could lead to improved services and resources for families like yours.

Focus of the Study

The specific focus of this study is to examine the impact of family characteristics on the overall adjustment, self-esteem and racial identity of children of color adopted by Caucasian parents.

Who can participate?

If you are a white adoptive parent of at least one child of color who was placed or adopted by the age of 4 and who is now between the ages of 14-19 please call or email today.

What will I have to do?

Both parent and child will be asked to complete a completely confidential 20-minute survey.

For more information or to participate call or email:

Dr. Leigh Leslie
The University of Maryland, Department of Family Science
College Park, Maryland

Appendix D

Demographic Items

Parent Demographic Questions

1. *Sex of parent*
Male
Female
2. *What is your racial/ethnic background?*
White
Other
3. *What is your current relationship status?*
Never Married
Never Married, Living Together
Legally Married
Separated/Divorced, Remarried
4. *If married or living together, what is the duration of your current relationship?*
(in years)
5. *What is your household income? (in dollars)*
6. *How many months old was this child when he/she came into your home? (in months)*
7. *Was the adoption domestic or international?*
Domestic
International

Adolescent Demographic Questions

1. *What is your age?*
2. *What is your sex?*
Male
Female
3. *What race or ethnicity do you consider yourself to be?*

Appendix E*Rosenberg's Self Esteem Scale Items*

[Items marked with an asterisk (*) will be recoded so that
higher scores indicate higher self-esteem.]

1. On the whole, I am satisfied with myself.
2. At times, I think I am no good at all. *
3. I feel that I have a number of good qualities.
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of. *
6. I certainly feel useless at times. *
7. I feel that I'm a person of worth, at least on an equal plane with others.
8. I wish I could have more respect for myself. *
9. All in all, I am inclined to feel that I am a failure. *
10. I take a positive attitude toward myself.

Appendix F

Youth Self Self-Report (YSR) Subscale Items for Internalizing Behaviors

Withdrawn/Depressed subscale:

1. There is very little that I enjoy.
2. I would rather be alone than with others.
3. I refuse to talk.
4. I am secretive or keep things to myself.
5. I am too shy or timid.
6. I don't have much energy.
7. I am unhappy, sad, or depressed.
8. I keep from getting involved with other kids.

Anxious/Depressed subscale:

1. I cry a lot.
2. I am afraid of certain animals, situations, or places other than school.
3. I am afraid of going to school.
4. I am afraid that I might think or do something bad.
5. I feel that I have to be perfect.
6. I feel that no one loves me.
7. I feel worthless or inferior.
8. I am nervous or tense.
9. I am too fearful or anxious.
10. I feel too guilty.
11. I am self-conscious or easily embarrassed.
12. I worry a lot.

Appendix G

Youth Self Self-Report (YSR) Subscale Items for Externalizing Behaviors

Aggressive Behavior subscale

1. I am mean to others.
2. I try to get a lot of attention.
3. I destroy my own things.
4. I destroy things belonging to others.
5. I disobey my parents.
6. I disobey at school.
7. I get in many fights.
8. I physically attack people.
9. I scream a lot.
10. I am stubborn.
11. My mood or feelings change suddenly.
12. I am suspicious.
13. I tease others a lot.
14. I have a hot temper.
15. I threaten to hurt people.
16. I am louder than other kids.

Appendix H

Family Environment Scale Subscale Items

[Items marked with an asterisk (*) will be recoded so that higher scores indicate more cohesion or conflict.]

Cohesion Subscale

1. Family members really help and support one another. *
2. We often seem to be killing time at home.
3. We put a lot of energy into what we do at home. *
4. There is a feeling of togetherness in our family. *
5. We rarely volunteer when something has to be done at home.
6. Family members really back each other up. *
7. There is very little group spirit in our family.
8. We really get along well with one another. *
9. There is plenty of time and attention for everyone in our family. *

Conflict Subscale

1. We fight a lot in our family. *
2. Family members rarely become openly angry.
3. Family members sometimes get so angry they throw things. *
4. Family members hardly ever lose their tempers.
5. Family members often criticize one another. *
6. Family members sometimes hit one another. *
7. If there's a disagreement in our family, we try hard to smooth things over and keep the peace.
8. Family members often try to one-up or out-do each other. *
9. In our family, we believe you don't ever get anywhere by raising your voice.

Appendix I

Color-Blind Racial Attitudes Scale Items

[Items marked with an asterisk (*) will be recoded so that

higher scores indicate more awareness of race.]

1. Everyone who works hard, no matter what race they are, has an equal chance to become rich. *
2. Race plays a major role in the type of social services (such as type of health care or day care) that people receive in the U.S.
3. It is important that people begin to think of themselves as American and not African American, Mexican American, or Italian American. *
4. Due to racial discrimination, programs such as affirmative action are necessary to help create equality.
5. Racism is a major problem in the U.S.
6. Race is very important in determining who is successful and who is not.
7. Racism may have been a problem in the past, but is not an important problem today. *
8. Racial and ethnic minorities do not have the same opportunities as White people in the United States.
9. White people in the U.S. are discriminated against because of the color of their skin. *
10. Talking about racial issues causes unnecessary tension. *
11. It is important for political leaders to talk about racism to help work through or solve society's problems.
12. White people in the U.S. have certain advantages because of the color of their skin.
13. Immigrants should try to fit into the culture and adopt the values of the U.S. *
14. English should be the only official language in the U.S. *
15. White people are more to blame for racial discrimination in the U.S. than racial and ethnic minorities.

16. Social policies, such as affirmative action, discriminate unfairly against White people. *
17. It is important for public schools to teach about the history and contributions of racial and ethnic minorities.
18. Racial and ethnic minorities in the U.S. have certain advantages because of the color of their skin. *
19. Racial problems in the U.S. are rare, isolated situations. *
20. Race plays an important role in who gets sent to prison.

Appendix J

Means and Standard Deviations of Adolescent Outcomes for
Families in which the Parent Viewed More Conflict Compared to
Families in which the Adolescent Viewed More Conflict

Table 12

Means and Standard Deviations of Adolescent Outcomes for Families in which the Parent Viewed More Conflict Compared to Families in which the Adolescent Viewed More Conflict

	Self-esteem		Internalizing Behaviors	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Parent Viewed More Conflict	32.65	4.01	8.65	4.96
Adolescent Viewed More Conflict	30.34	6.32	9.51	7.01

Appendix K

Distribution of Absolute Value Discrepancy Scores for Family Cohesion and Family Conflict

Figure 2: Distribution of Absolute Value Discrepancy Scores for Family Cohesion

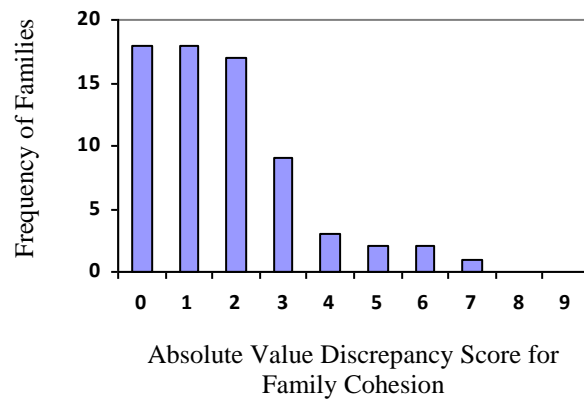
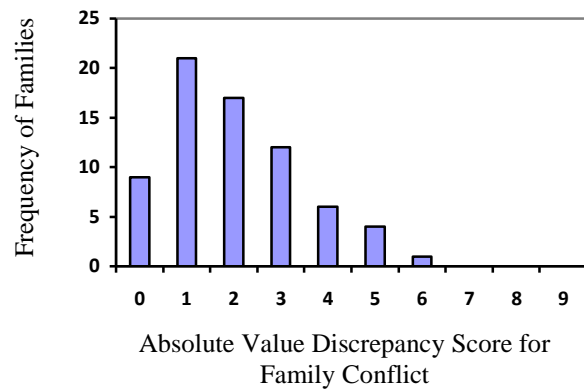


Figure 3: Distribution of Absolute Value Discrepancy Scores for Family Conflict



Appendix L

Family Cohesion and Family Conflict Cutoffs for Low, Medium, High Categories

Table 13

Family Cohesion and Family Conflict Cutoffs for Low, Medium, High Categories

Variable	<i>M</i>	<i>SD</i>	Category	Calculated Cutoffs	Used Cutoffs	% of Sample
Adolescent Family Cohesion	15.77	2.29	Low	<12.92	<13	11%
			Medium	12.92 - 18.62	13 - 17	65%
			High	18.62>	18*	24%
Parent Family Cohesion	16.57	1.46	Low	<15.11	<16	23%
			Medium	15.11 - 18.03	16 - 17	41%
			High	18.03>	18*	36%
Adolescent Family Conflict	12.86	2.26	Low	<10.60	<11	17%
			Medium	10.60 - 15.12	11 - 14	54%
			High	15.12>	14>	29%
Parent Family Conflict	12.19	2.16	Low	<10.03	<11	27%
			Medium	10.03 - 14.35	11 - 14	62%
			High	14.35>	14>	11%

*The calculated cutoff between medium and high cohesion for both adolescent (18.62) and parent (18.03) exceeded 18, the highest possible rating for family cohesion on the FES (Moos & Moos, 1994). The sample in general reported high levels of cohesion. In order to categorize high reports of family cohesion for this sample, it was decided that any family member reporting an 18 was considered high on cohesion to represent this extreme. Use of the means and standard deviation reported for the FES were considered for use to create these cutoffs. However, because it is of interest to understand the extremes in this unique sample of transracially adopted adolescents and their parents, this sample's means and standard deviations were utilized, and the described accommodations were made.

Appendix M

Means and Standard Deviations for Adolescent Outcomes for

Families in which Both Parent and Adolescent View a Positive Family Environment

Compared to Other Families

Table 14

Means and Standard Deviations for Adolescent Outcomes for Families in which Both Parent and Adolescent View a Positive Family Environment Compared to Other Families

		Self-Esteem		Internalizing Behaviors		Externalizing Behaviors	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Cohesion							
Both Parent and Adolescent Report	High Cohesion	33.78	4.02	8.56	3.97	4.33	2.60
Other Families		30.35	5.75	9.67	7.09	6.90	5.09
Conflict							
Both Parent and Adolescent Report	Low Conflict	27.60	6.02	32.80	10.09	20.80	2.95
Other Families		31.20	5.57	29.26	6.40	22.70	5.02

Appendix N

Summary of Hierarchical Regressions Exploring Curvilinear Relationships

Without the Linear Term

Table 15

Summary of Hierarchical Regression Analysis for Curvilinear Relationship Between Discrepancy in Family Cohesion and Self-Esteem Without Linear Term

Model	1	2	3
Age	-.062	-.037	-.046
Race			
Asian	ref	ref	ref
African American	-.021	-.038	-.036
Latino	-.048	-.047	-.043
Gender			
Female	ref	ref	ref
Male	-.101	-.064	-.057
Family Cohesion		.237	.279
(Discrepancy in Family Cohesion) ²			.075
ΔR^2	.008	.053	.004
$\Delta R^2 F$	.127	3.59	.245
R^2	.008	.060	.064
Model <i>F</i>	.127	.823	.719

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 16

Summary of Hierarchical Regression Analysis for Curvilinear Relationship Between Discrepancy in Family Cohesion and Internalizing Behaviors Without Linear Term

Model	1	2	3
Age	-.089	-.116	-.093
Race			
Asian	ref	ref	ref
African American	-.069	-.051	-.056
Latino	.004	.003	-.007
Gender			
Female	ref	ref	ref
Male	-.104	-.044	-.064
Family Cohesion		-.259*	-.372*
(Discrepancy in Family Cohesion) ²			-.204
ΔR^2	.030	.063	.030
$\Delta R^2 F$	.502	4.42*	1.90
R^2	.030	.093	.119
Model F	.502	1.307	1.421

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 17

Summary of Hierarchical Regression Analysis for Curvilinear Relationship Between Discrepancy in Family Cohesion and Externalizing Behaviors Without Linear Term

Model	1	2	3
Age	-.209	-.249*	-.248
Race			
Asian	ref	ref	ref
African American	-.006	.021	.021
Latino	.041	.039	.039
Gender			
Female	ref	ref	ref
Male	.040	.127	.126
Family Cohesion		-.380**	-.385**
(Discrepancy in Family Cohesion) ²			-.009
ΔR^2	.040	.135	<.001
$\Delta R^2 F$	.684	10.471**	.004
R^2	.040	.175	.175
Model F	.684	2.721*	2.233

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 18

Summary of Hierarchical Regression Analysis for Curvilinear Relationship Between Discrepancy in Family Conflict and Self-Esteem Without Linear Term

Model	1	2	3
Age	-.062	-.076	-.095
Race			
Asian	ref	ref	ref
African American	-.021	.004	.007
Latino	-.048	-.030	-.021
Gender			
Female	ref	ref	ref
Male	-.01	-.013	-.012
Family Conflict		-.122	-.138
(Discrepancy in Family Conflict) ²			.068
ΔR^2	.008	.014	.004
$\Delta R^2 F$	.127	.92	.262
R^2	.008	.022	.026
Model F	.127	.285	.279

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 19

Summary of Hierarchical Regression Analysis for Curvilinear Relationship Between Discrepancy in Family Conflict and Internalizing Behaviors Without Linear Term

Model	1	2	3
Age	-.089	-.057	-.015
Race			
Asian	ref	ref	ref
African American	-.069	-.127	-.135
Latino	.004	-.037	-.057
Gender			
Female	ref	ref	ref
Male	-.104	-.097	-.099
Family Conflict		.283*	.319*
(Discrepancy in Family Conflict) ²			-.149
ΔR^2	.030	.076	.020
$\Delta R^2 F$	.502	5.455*	1.419
R^2	.030	.106	.126
Model F	.502	1.520	1.512

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 20

Summary of Hierarchical Regression Analysis for Curvilinear Relationship Between Discrepancy in Family Conflict and Externalizing Behaviors Without Linear Term

Model	1	2	3
Age	-.209	-.163	-.155
Race			
Asian	ref	ref	ref
African American	-.006	-.088	-.089
Latino	.041	-.018	-.022
Gender			
Female	ref	ref	ref
Male	.040	.049	.049
Family Conflict		.405***	.411***
(Discrepancy in Family Conflict) ²			-.026
ΔR^2	.040	.156	.001
$\Delta R^2 F$.684	12.381***	.046
R^2	.040	.196	.197
Model F	.684	3.119*	2.568*

* $p < .05$, ** $p < .01$, *** $p < .001$

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