

SELF-APPRAISAL AND BEHAVIORAL ADAPTATION OF ADOPTED AND  
NONADOPTED CHILDREN

Pamela L. Easterbrook

A dissertation submitted to the faculty of the University of North Carolina at Chapel Hill in  
partial fulfillment of the requirements for the degree of Doctor of Philosophy in the School of  
Education (School Psychology)

Chapel Hill  
2007

Approved by:

Chair: Rune Simeonsson

Reader: John Brantley

Reader: William Ware

Reader: Steve Knotek

Reader: Sandra Evarrs

©2007  
Pamela L. Easterbrook  
ALL RIGHTS RESERVED

## **ABSTRACT**

PAMELA L. EASTERBROOK: Self-Appraisal and Behavioral Adaptation of Adopted and Nonadopted Children  
(Under the direction of Rune Simeonsson)

This study compared adopted children and nonadopted peers on their cognitive appraisal of self, adaptation, and behavior on a non-clinical sample between the ages of six to thirteen. A total of 80 adopted and 80 nonadopted children and their mothers participated in the study. Children in both categories were grouped into 4 age ranges of 20 children with equal numbers of boys and girls between the ages of 6-13. Three hypotheses addressed age group status and adoption differences on measures of children's self-appraisal and behavioral adjustment. The first hypothesis was supported showing adopted children had significantly lower self-appraisal scores and significantly more behavior problems than nonadopted children. A test of the second hypothesis regarding age group differences was not supported for either Self-Appraisal Scale scores or the Child Behavior Checklist scores. A significant negative relationship supported the third hypothesis that adopted children's low self-appraisal rating were related to increased behavior problems. These findings provide evidence of an elevated risk of behavior problems and negative self-appraisal for adopted children ages 6-13. This negative self-appraisal appears to be linked to behavioral adjustment, supporting past research that indicates a relationship between beliefs and behavior. Although this study did not find an increase in behavior problems for the older adopted children, other studies have shown that adopted children's behavior problems may not be transitory. While findings

of this study are based on a homogenous sample of traditionally adopted children, it must be noted that the face of adoption is changing. As non-traditional adoptions continue to increase, previous research may not be generalizable, thereby necessitating ongoing research on adoptees' development and adjustment. Future research that examines pre-placement experiences as well as placement type may help us to better understand the complex relationship between changes in family placement and behavior problems. In order to offer a richer, more complete understanding of adoption it is important to consider the gains of adoption and not just the aspects of liability and loss. Although this study found a greater prevalence of maladaptive behavior and lower self-appraisal among adopted children, approximately 65% of adoptees' behavior was within the normal range of functioning. Adoption therefore remains a valuable and important social response to the complicated challenge of meeting the developmental well-being of children.

## **ACKNOWLEDGEMENTS**

I would like to express appreciation to all those who supported me during the completion of my dissertation. This research project was made possible with the support of the following individuals:

- My family and friends who encouraged me to persevere.
- Dr. Rune Simeonsson, for his assistance, knowledge and availability during the completion of my dissertation.
- All the members of my dissertation committee, whose feedback and patience has helped me reach my goal of completing my dissertation.
- The generous children and families who participated in this study.

## TABLE OF CONTENTS

<b>LIST OF TABLES</b> .....	ix
<b>LIST OF FIGURES</b> .....	x
<b>CHAPTER 1</b> .....	1
INTRODUCTION .....	1
HISTORICAL AND CONTEMPORARY PERSPECTIVES ON ADOPTION .....	1
<b>CHAPTER 2</b> .....	5
REVIEW OF THE LITERATURE .....	5
EMPIRICAL STUDIES .....	5
THEORETICAL PERSPECTIVES .....	7
A MODEL OF STRESS AND COPING IN ADOPTION .....	8
APPRAISAL OF LOSS AMONG ADOPTED CHILDREN .....	11
DEVELOPMENTAL CHANGES .....	11
OTHER PERSON VARIABLES IMPACTING APPRAISAL AND ADJUSTMENT ....	15
BACKGROUND VARIABLES .....	16
Biological variables .....	16
Cultural factors .....	19
Interpersonal factors .....	20
CHILDREN'S COPING EFFORTS .....	25
STRESS AND ADAPTATIONAL OUTCOMES .....	26

LOSS AS A SOURCE OF STRESS IN ADOPTION .....	26
LOSS IN ADOPTION .....	28
PURPOSE OF THE STUDY .....	34
RESEARCH QUESTIONS .....	34
<b>CHAPTER 3</b> .....	<b>36</b>
METHOD .....	36
PARTICIPANTS .....	36
PROCEDURES .....	37
MEASURES .....	38
Measure of self-report .....	38
Measure of mother's report .....	40
DATA ANALYSIS PLAN .....	42
RESEARCH QUESTIONS .....	42
<b>CHAPTER 4</b> .....	<b>44</b>
RESULTS .....	44
Hypothesis 1A .....	45
Hypothesis 1B .....	46
Hypothesis 2A .....	48
Hypothesis 2B .....	49
Hypothesis 3 .....	49
<b>CHAPTER 5</b> .....	<b>51</b>
DISCUSSION .....	51
Hypotheses for Question 1: .....	51

Hypotheses for Question 2:.....	52
Hypothesis for Question 3: .....	54
Limitations .....	55
Conclusions.....	57
<b>REFERENCES</b> .....	61



## LIST OF TABLES

Table 3.1 Demographics .....	37
Table 3.2 Age at Placement .....	37
Table 3.3 Self-Appraisal Scale .....	40
Table 3.4 Child Behavior Checklist Sample.....	41
Table 4.1 Summary Statistics of Child Variables.....	44
Table 4.2 Self-Appraisal Scale Statistics .....	45
Table 4.3 Child Behavior Checklist Statistics .....	48

## LIST OF FIGURES

Figure 2.1 Model of Stress and Coping .....	9
Figure 4.1 Estimated Marginal Means of Self-Appraisal Scale .....	46
Figure 4.2 Estimated Marginal Means of Total Score .....	47
Figure 4.3 Linear Regression.....	50

## CHAPTER 1

### INTRODUCTION

#### HISTORICAL AND CONTEMPORARY PERSPECTIVES ON ADOPTION

"Adoption" is a term used to describe a personal and legal act as well as a social service (Cole, 1985; Cole & Donley, 1990). Because adoption is a social construction, it is value laden and shaped by cultural forces. Since recorded history, adoption has been practiced either formally, through established laws or rules (e.g., Code of Hammurabi, the Napoleonic Code, English common law), or informally by social custom, and has long been seen as an acceptable way of incorporating new members into a family (Presser, 1972; Sokoloff, 1993).

Historically, mental health professionals have paid little attention to adoption. It was seen as a rather successful social service solution to the problems confronting all three parties of the adoption triangle, that is, the problem of an unwanted pregnancy for the birth parents, the problem of infertility and childlessness for the prospective adoptive parents, and the problem of a state of homelessness for the child (Baran & Pannor, 1990; Benet, 1976; Brodzinsky, Smith, & Brodzinsky, 1998). Because of the long tradition of viewing adoption as a solution to many problems, professionals and lay people may have difficulty accepting the possibility that the solution itself could at times be a problem (Brodzinsky, Schechter & Henig, 1992).

During the first half of the twentieth century, questions regarding the benefits and risks associated with adoption began to attract the attention of the mental health community

due to the development of psychoanalytic theory with its emphasis on the role of early childhood experience (Clothier, 1939, 1943). Research on the effects of institutionalization and separation from attachment figures (often described as maternal deprivation) sensitized professionals to the potential risks associated with adoption (Bowlby, 1951; Bowlby, Ainsworth, Boston, & Rosenbluth, 1956).

Still, interest in the psychology of adoption remained quite limited until the 1960s when Marshall Schechter and his colleagues published two empirical papers on adoption. In these papers the researchers noted that although non-blood related adopted children constituted approximately 1 to 2% of the population of children in the United States under 18 years of age (Zill, 1985), they accounted for 6% of those individuals seeking mental health services in outpatient settings (Mech, 1973; Schechter, 1960; Schechter, Carlson, Simmons & Work, 1964) and 10 to 15% for inpatient and residential settings (Rogeness, Hoppe, Macedo, Fisher & Harris, 1988). These papers stimulated much debate among the professional community and have led to a series of epidemiological studies addressing the incidence and prevalence of adoptees in clinical settings, as well as a host of studies on the clinical symptomatology of outpatient and inpatient adoptees. These studies found the incidence of adoptees in outpatient and inpatient mental health settings as high as 18% (Brinich & Brinich, 1982; Goldberg & Wolkind 1992; Jerome, 1993; Kadushin, 1980; Warren, 1992).

Over the past three decades a great deal has been written about adoption, and yet our understanding of the impact of this arrangement on children and parents remains quite limited. The heavy focus of research on clinical populations has restricted the generalizability of the findings to the broader non-clinical adoption community (Brodzinsky,

Smith, & Brodzinsky, 1998). Much of the literature has focused on the question of whether adopted children are at increased risk for psychological and academic problems compared with their nonadopted peers (Brodzinsky, 1993; Wierzbicki, 1993), as well as on developmental issues and individual difference factors in patterns of adoption adjustment (Brodzinsky, 1987; Brodzinsky, Schechter, & Henig, 1992; Wilson, 2004). Other investigators have focused on psychological issues involving adoptive parents and/or the nature and functioning of the adoptive family system (Bird, Peterson, & Miller, 2002; Blum, 1983; Brodzinsky, 2006; Feigelman, 2001; Juffer, Bakersman, & Ijzendoorn, 2005; Kaye & Warren, 1988; Kirk, 1964; Reitz & Watson, 1992; Ternay, Wilborn, & Day, 1985).

Current knowledge about adopted children tends to be based on research that focused on traditional adoption practices. This arrangement typically entails adoption of young infants, by parents of the same race, arranged either independently or through adoption agencies, in which both sets of parents were strangers to each other and remain strangers after the placement. In traditional adoption, the adoption records are "sealed" by the courts and remain confidential. However, adoption policies are changing not only in terms of who is adopting and who is being adopted, but also in terms of the relationship among the three parties involved. Open adoption is relatively new, and the oldest children adopted under open arrangements are just entering adulthood (Sibler and Martinez Dorner, 1990). So while what is known is still relevant for adoptees in later adolescence and adulthood, it may not hold for adoptees in the next generation (Brodzinsky & Schechter, 1990).

A review of the research literature suggests that adopted children are at increased risk for psychological and academic problems in comparison to their nonadopted counterparts. Any problems, however, generally do not manifest themselves until the child reaches

elementary school age years. Furthermore, it is clear that adopted children display a wide range of adjustment patterns, with estimates of five to twenty three percent presenting evidence of clinically significant symptomatology (Brodzinsky, Radice, Huffman, & Merkler, 1987; Fergusson, Lynskey, & Horwood, 1995; Goldgerg & Wolkind, 1992; Ingersoll, 1997; Wilson, 2004).

Adoption has a long and rich history. Beginning as a somewhat informal practice focusing on the needs and interests of adoptive parents and society in general, adoption has emerged in contemporary society as a formalized social service practice, regulated by state law, and geared primarily toward meeting the “best interest of the child.” Adoption is also characterized today by greater diversity in the characteristics of children being adopted as well as those individuals adopting them, making adoption a remarkably varied and complex social service practice.

## CHAPTER 2

### REVIEW OF THE LITERATURE

#### EMPIRICAL STUDIES

In the last three decades, researchers have begun to pay increased attention to the psychological complications associated with adoption. Their attention has been prompted by numerous reports of higher rates of referral of adopted children and youth to outpatient and inpatient mental health facilities (Baran & Pannor, 1993; Brand & Brinich, 1999; Juffer, Stams, & Ijzendor, 2004; Stams, 2000; Warren, 1992). For example, although children under the age of 18 adopted by non-blood relatives constitute approximately 2% of the total population of children in the United States (Stolley, 1993), they represent between 4 and 5% of the children referred to outpatient mental health facilities (Kadushin, 1980; Mech, 1973) and between 10 and 15% of the children in residential care facilities (Brodzinsky, Schechter & Henig, 1992; Senior & Himaldi, 1985; Jerome, 1993; Goldberg & Woldkind, 1992). Research on the symptomatology presented by the children referred to clinics also indicates that adoptees are more likely than their nonadopted counterparts to display a variety of acting-out problems (e.g., aggression, stealing, lying, oppositional behavior, running away, hyperactivity), low self-esteem, and a host of learning difficulties (Dalby, Fox, & Haslam, 1982; Deutsch, Swanson, Bruell, Cantwell, Weinberg & Baren, 1982; Fullerton, Goodrich, & Berman, 1986; Ijzendoorn, Juffer, & Poelhuis, 2005; Kenny, Baldwin, & Mackie, 1967; Lifshitz, Baum, Balgur, & Cohen, 1975; Menlove, 1965; Offord, Aponte, & Cross, 1969; Schechter, Carlson, Simmons & Work, 1964; Silver, 1970; Simon & Senturia, 1966; Taichert

& Harvin, 1975; Wilson, 2004). Even research with non-clinical, community-based samples of adopted children suggests somewhat greater psychological vulnerability compared to nonadopted children (Bohman, 1970; Brodzinsky, Radice, Huffman, & Merkler, 1987; Brodzinsky, Schechter, Braff, & Singer, 1984; Feigelman, 2001; Feigelman & Finley, 2004; Haugaard, 1998; Howard, Smith, & Ryan, 2004; Hoopes, 1982; Lindholm & Touliatos, 1980; Seglow, Pringle, & Wedge, 1972; Sharma, McGue, & Benson, 1998; Ternay, Wilborn, & Day, 1985; Zill, 1985).

Brodzinsky et al. (1992) found the labeling of learning disabilities to be four times greater for a non-clinical community-based sample of adoptees compared to nonadoptees. Adopted children also represent 5% of children in psychotherapy, and constitute 6 to 9% of children identified by school systems as either perceptually, neurologically, or emotionally impaired (Brodzinsky, Radice, & Merkler, 1987; Ijzendoorn et al., 2005). Deutsch, Swanson, Bruell, Cantwell, Weinberg, & Baren (1982) found that among two samples of children diagnosed as having attention deficit disorder (ADD), the rates of non-relative adoption were 21% and 13%, respectively. This represents an eightfold increase, on the average, over the expected rate. These authors went on to calculate the conditional probability of the diagnosis ADD, given a non-relative adoptive status, to be approximately 23%. Interestingly, no studies have found significant behavioral or learning differences between adopted and nonadopted children in infancy or the preschool years (Brodzinsky & Schechter, 1990).

Of particular interest is a study by Brodzinsky et al. (1987) that involved a non-clinical community-based sample. This study found 36% of adopted children to be experiencing one or more clinically maladaptive symptoms as measured on the Child Behavior Profile



(Achenbach, 1978), as compared to only 13% of nonadopted children. Approximately 12% of the adopted group were experiencing three or more clinically maladaptive symptoms, as compared to 3% of the nonadopted sample. The adopted sample significantly exceeded the nonadopted sample in clinically significant symptomatology in the areas of Uncommunicative, Hyperactivity, Depression, and Aggression on the Child Behavior Profile. The children in this study ranged in age from 6 to 11 years, and had not experienced a significant family disruption within the previous year prior to data collection. Further, they lived with both parents, had no severe mental or physical handicaps, had no severe psychopathology (e.g., psychosis), and did not attend any special schools or classes for the emotionally disturbed or learning disabled.

#### THEORETICAL PERSPECTIVES

Mental health professionals have offered a variety of theoretical explanations for the problems manifested by adoptees. Some have focused their attention on those aspects of the adoption experience that complicate coping with object loss, and the development of a mature and stable ego identity (Blum, 1983; Brinich, 1980; Brodzinsky, 1987; Easson, 1973; Juffer, Stams, & Ijzendoorn, 2004; Nickman, 1985; Sants, 1964; Schechter, 1960; Sorosky, Baran, & Pannor, 1975). Cognitive-developmental factors have also been offered as components of the adoption-adjustment process, particularly as they relate to the child's growing awareness of the meaning of adoption (Brodzinsky, 1984, 1987; Brodzinsky, Braff, & Singer, 1980; Brodzinsky, Schechter, & Brodzinsky, 1986; Brodzinsky, Singer, & Braff, 1984; Juffer, 2006). Finally, various researchers have suggested that the problems of the adopted child may have a biological source associated with increased genetic vulnerability or prenatal and reproductive complications (Bohman, 1970; Cadoret, 1978; Deutsch et al.,

1982; Loehlin, Willerman, & Horn, 1982).

Although many different perspectives have been offered on the adjustment problems of adopted children, a common thread can be found running through most of them. Every theory acknowledges that adoption is experienced as stressful by many children and, consequently, results in a variety of coping efforts, some of which are successful and others which are not (Brand & Weisz, 1988; Costello, 1982; Curry & Russ, 1985; Lazarus, DeLonges, Folkman, & Gruen, 1985; Lazarus & Folkman, 1984). Therefore, there has been growing acceptance of the role of stress and coping as a mediating factor in the physical and psychological well being of the adoptee (Brodzinsky & Schechter, 1990; Brodzinsky, Smith, & Brodzinsky, 1998; Garnezy & Rutter, 1983).

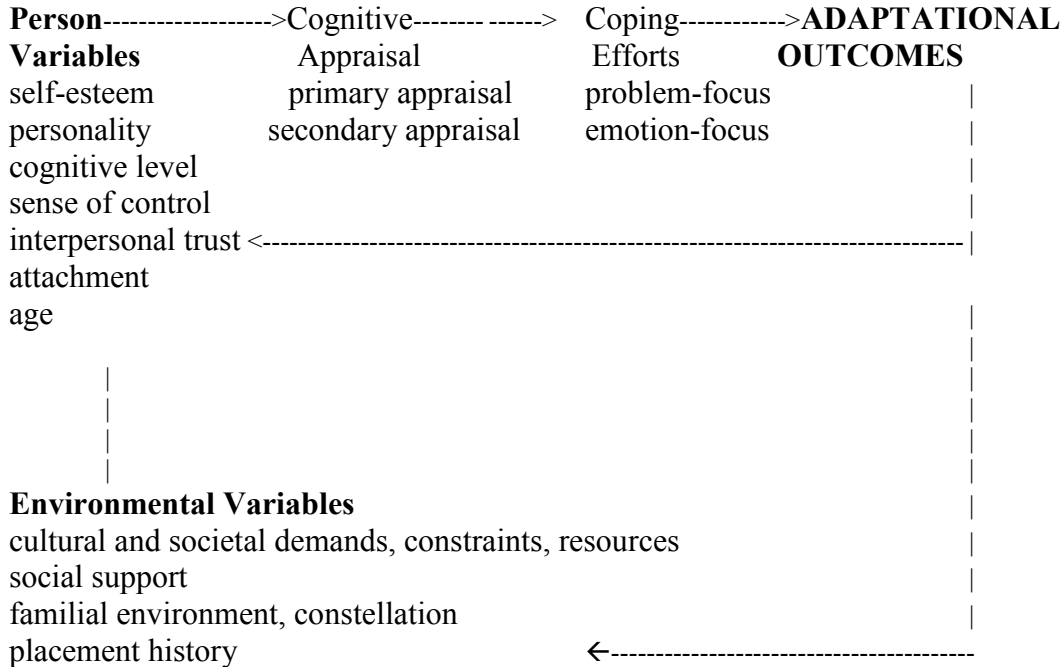
#### A MODEL OF STRESS AND COPING IN ADOPTION

Explaining the wide array of reactions to the experience of adoption-related losses constitutes the primary challenge for any model of adoption adjustment (Brodzinsky & Schechter, 1990; Brodzinsky, Smith, & Brodzinsky, 1998). Figure 2.1 represents a schematic representation of some current thinking about adoption adjustment in terms of a stress and coping model.

Figure 2.1 Model of Stress and Coping

**Biological Variables**

genetics  
prenatal/reproductive experiences



(Brodzinsky & Schechter, 1990)

First, the present model, as noted earlier, draws heavily on the work of Lazarus and his colleagues (DeLongis, Coyne, Dakof, Folkman & Lazarus, 1982; Lazarus et al., 1985; Lazarus & Folkman, 1984), as well as Brodzinsky's previous work on cognitive-developmental and psychosocial factors in adoption adjustment (Brodzinsky, 2006; Brodzinsky, 1984, 1987; Brodzinsky et al., 1986; Brodzinsky et al., 1980; Brodzinsky & Huffman, 1988; Brodzinsky, Schechter, Braff, & Singer, 1984; Brodzinsky, Singer, & Braff, 1984). Second, although the current model is believed to have substantial integrative and

generative value, it still is considered incomplete, given the paucity of research on children's adoption adjustment.

As noted earlier, a primary assumption of the present model is that adoption leads to an experience of loss on the part of the child. Although this experience is believed to be universal among adoptees, the extent to which the loss is experienced as stressful obviously varies from child to child. Whereas some children are severely distressed over the loss of birth parents, origins, and so on, others show minimal reactions to these losses.

At the heart of the current model is the assumption that children's adjustment to adoption (both short-term and long-term outcome) is mediated by various cognitive-appraisal processes and coping efforts. Cognitive appraisal includes both the child's interpretation and attribution of the meaning of being adopted, including its potential as a stressor, as well as a subjective evaluation of the options available to the child for dealing with the conflict, demands, challenges, and so on that are part of the adoption experience (Brodzinsky & Schechter, 1990; Brodzinsky, Smith, & Brodzinsky, 1998). Coping efforts include a variety of strategies that are activated in response to the perceived stress of adoption. Some of these strategies are thought to be problem focused (e.g., instrumental action, negotiation, mobilizing support, information seeking, altering one's aspirations or expectations, and exercising restraint) and others are thought to be emotion focused (e.g., minimization, denial, escapism, distancing, self-blame, and redefinition). Impacting on the cognitive-appraisal process are a host of person-related variables. Among the more important of these variables are the child's self-esteem, sense of mastery and control, interpersonal trust, values, and level of cognitive functioning (Lazarus & Folkman, 1984). In addition, two sets of background variables are also posited as influencing the adoption adjustment process. These include

biological factors, such as the child's genetic endowment and prenatal and reproductive experiences, as well as various environmental factors such as general familial and peer socialization experiences, and various cultural and situational demands, constraints, and resources specifically associated with adoption. Finally, it should be noted that the current model is recursive in nature. As such, it is assumed that short-term adaptational outcomes influence various person variables directly as well as indirectly through their impact on more general environmental experiences (Brodzinsky & Schechter, 1990; Brodzinsky et al., 1998.)

## APPRAISAL OF LOSS AMONG ADOPTED CHILDREN

### DEVELOPMENTAL CHANGES

The relinquishment of a young baby by a biological mother and the subsequent placement of that child with an adoptive couple does not, by itself, produce a sense of loss in the experience of the newly placed infant. In traditional adoption (i.e., placement in infancy), where the child's primary attachments are formed in the adoptive family, the emergence of a sense of loss grows slowly and typically does not appear until the elementary school years. This developmental pattern has been well documented in research by Brodzinsky and his colleagues (Brodzinsky, 1984, 1987; Brodzinsky et al., 1980; Brodzinsky, Singer, & Braff, 1984; Brodzinsky et al., 1986).

In the preschool years, when most adoptive couples begin to disclose adoption information to their children, there is little evidence of any immediate, adverse reaction to the information. In fact, young adopted children often have a very positive view of adoption (Juffer, 2006; Singer, Brodzinsky, & Braff, 1982). Their initial reaction to their family status is based on two factors. First, they generally are told about being adopted in the context of a

warm, loving, and protective family environment. Thus the emotional climate surrounding the telling process is one which fosters acceptance and positive self-regard.

A second and very important factor in the young child's positive attitude about adoption is his or her limited cognitive ability. Brodzinsky's research suggests that most children do not understand the meaning of being adopted until 5 to 7 years of age, and even then their understanding may be quite limited (Brodzinsky et al., 1984). Although younger children may well be able to describe the events leading to their adoption, in most cases, these descriptions mask a conspicuous absence of knowledge. The young child's verbal report typically represents little more than an ability to repeat, often with considerable accuracy, the adoption story presented by parents. Thus it is understandable that young adopted children show little distress regarding their adoptive family status. The combination of a warm emotional climate surrounding the initial telling process and the young child's cognitive limitations almost assures that the adoption information received by the child will be accepted in a positive light.

As children enter the elementary school years, however, a number of important changes occur that impact significantly on adoption adjustment. During this developmental period, which roughly corresponds to Piaget's concrete operational stage, children are becoming increasingly reflective, analytic, planful, and logical in their approach to the world (Braine & Romain, 1983; Brown, Bransford, Ferrara, & Campione, 1983; Burrow, Tubman, & Finley, 2004; Gelman & Baillargeon, 1983; Kogan, 1983; Shantz, 1983). As part of this growth in cognitive and process reasoning, children's knowledge of adoption also undergoes important changes. Not only do children clearly differentiate between adoption and birth as alternative ways of entering a family, but they gain new insights into the implications of

being adopted. For example, whereas preschool children tend to define a family in terms of the people who live together, by the elementary school years, most children view family members as individuals who share a blood (i.e. biological) relationship (Pederson & Gilby, 1986; Piaget, 1964). This new way of looking at the family fosters increased recognition and appreciation of the lack of biological connectedness between the child and the adoptive parents, which, in turn, often creates confusion and stress on the part of the child, and undermines his or her sense of security and permanence in the family (Brodzinsky, 2006; Brodzinsky, 1984; Brodzinsky et al., 1980; Brodzinsky, Pappas, Singer, & Braff, 1981; Brodzinsky, Schechter & Brodzinsky, 1986; Brodzinsky, Singer, & Braff, 1984).

Another new insight into adoption that emerges at this time is the child's recognition of relinquishment. Preschool age children tend to focus primarily on being adopted by their parents, that is, being incorporated into their new family. This focus parallels the nature of the story presented by most adoptive parents which emphasizes aspects of family building and minimizes aspects concerning the birthmother's surrender of the child. As children mature cognitively, however, their capacity for understanding logical reciprocity leads them to a profound insight--to be adopted, one must first be relinquished or surrendered. Thus in the elementary school years, children view adoption not only in terms of family building, but also in terms of family loss (Brodzinsky, 2006; Brodzinsky & Schechter, 1990).

The child's sense of loss associated with adoption is accompanied by many behavioral, emotional, and attitudinal changes. To begin with, children no longer view adoption in such a positive light. Singer et al. (1982) reported that by eight years of age, most adopted children experience considerable ambivalence about being adopted. In addition to this attitudinal change, numerous professionals have commented on the increase

in anger, depression, aggression, oppositional behavior, uncommunicativeness, and self-image problems that emerge during this time among many adoptees (Bohman & Sigvardsson, 1990; Brinich, 1980; Brodzinsky, 1987; Fergusson et al., 1995; Ingersoll, 1997; Juffer, 2006; Kirschner & Nagel, 1988; Nickman, 1985; Verhulst & Versluis, 1994). Brodzinsky (1987) has suggested that this behavioral and emotional pattern reflects a process of adaptive grieving in response to the recognition that one has lost something significant. Moreover, as the individual moves into adolescence, this sense of loss may deepen. No longer is the experience of loss restricted primarily to one's birth parents. With the development of higher order cognitive functions, adolescents begin to re-evaluate the loss in terms of their emerging identity (Brodzinsky et al., 1986; Brinich, 1980; Nickman, 1985). At this time, a loss of self often is experienced as well as a loss of connectedness to a genealogical line. These new losses contribute to the behavioral and emotional reactions associated with the grieving process (Brodzinsky, Schechter, & Henig, 1992; Costello, 1982; Leon, 2002).

The current model of children's adjustment assumes that children's adjustment to adoption is determined, in part, by their appraisal and attribution of adoption-related losses, which, in turn, is mediated by the gradual emergence of various cognitive and processing capabilities. In other words, until adopted children have reached the stage where they are cognitively mature enough to reflect on their unknown past and their unknown parents and until their origins and the circumstances surrounding the relinquishment take on a reality within a well-developed representational system, there is little basis for expecting that they will experience adoption-related losses and the subsequent behavioral and emotional reactions of the grieving process (Brodzinsky & Schechter, 1990). Similar points have been



made by other writers who have emphasized the role of mental processes in children's development and maintenance of attachment relationships and their subsequent response to separation and loss (Bloom-Feshbach & Bloom-Feshbach, 1987; Bowlby, 1969, 1973, 1980; Main, Kaplan, & Cassidy, 1985).

#### OTHER PERSON VARIABLES IMPACTING APPRAISAL AND ADJUSTMENT

Besides level of cognitive functioning, there are a number of other person variables that are assumed to influence the child's adjustment to adoption. Self-esteem, self-efficacy, and the child's sense of control are three variables commonly associated with one another that are believed to mediate the adoption appraisal and coping process. Clinical experience suggests that children with low self-esteem, low feelings of efficacy, and a diminished sense of personal control tend to evaluate their adoption experience more negatively and utilize coping strategies that produce less satisfying adaptational outcomes (Brodzinsky & Schechter, 1990; Juffer et al., 2004). In particular, it is quite common to find these children engaging in self-blame for their relinquishment, which, in turn, often produces depressive problems in self-esteem, self-efficacy, or perceived control and project blame outward, either toward the birth parents or the adoptive parents. In this case difficulties in adaptational outcome tend to be more externalizing in nature with children exhibiting anger, aggression, oppositional behavior, lying, and stealing (Bohman & Sigvardsson, 1990; Brodzinsky, 1987; Fergusson et al., 1995; Ingersoll, 1997; Sharma, McGue, & Benson, 1996; Verhulst & Versluis, 1994; Wilson, 2004).

Two other person variables also need to be mentioned. The child's sense of interpersonal trust and the degree of commitment to the adoptive family are believed to be powerful forces shaping the appraisal and coping process. These two variables are part of the

more general process of attachment, which numerous writers have discussed in the context of adoption adjustment (Brodzinsky, 1987; Fahlberg, 1979; Singer, Brodzinsky, Ramsay, Steir, & Waters, 1985; Steinhauer, 1983; Yarrow & Goodwin, 1973; Yarrow, Goodwin, Manheimer, & Milowe, 1973). Although to date, there is very little known about the role of interpersonal trust and family commitment in the adopted child's adjustment, clinical experience suggests that children who have little trust in, or commitment to, their adoptive family members are likely to appraise the adoption experience more negatively, feel a greater sense of adoption-related loss, and utilize coping strategies that produce less satisfying patterns of adjustment (Bird, Peterson, & Miller, 2002; Brodzinsky, 2006; Hollenstein, Leve, Scaramella, Milfort, & Neiderhiser, 2003; Juffer, Bakersman, & Ijzendoorn, 2005).

Although it has been suggested that children's self-esteem, sense of personal control, interpersonal trust mediate their appraisal of adoption-related loss, and their subsequent adoption adjustment, it is also recognized that short-term adaptational outcomes invariably impact on children's self-esteem and other aspect of their personality. In other words, adjustment to adoption is viewed as a transactional process in which person variables, appraisal and coping processes, and adaptational outcomes are assumed to have an ongoing interactive influence on one another (see Figure 2.1).

## BACKGROUND VARIABLES

### *Biological variables*

As noted earlier, the child's adjustment to adoption is believed to be influenced by his or her genetic endowment as well as by prenatal and postnatal factors. Recently, several writers have argued that the psychological and academic problems of adopted children may have a genetic basis (Cantwell, 1978; Deutsch et al., 1982; Everett & Schechter, 1971;

Jerome, 1993; Verhulst, 1992). This assumption is tied to the frequently reported finding that psychopathology in adoptees is more strongly related to psychopathology in the biological parents as opposed to the adoptive parents (Baran & Panor, 1990; Cadoret, 1990; Cadoret, 1978). Furthermore, at least one study (Horn, Green, Carney, & Erickson, 1975) found that unwed mothers whose children were placed for adoption scored higher on a number of clinical scales on the Minnesota Multiphasic Personality Inventory (MMPI) than did the adoptive parents of these children. To the extent that the problems measured by these scales have a genetic component (as the authors suggest), it could be argued, on the one hand, that the findings support the position that adoptees come from a less optimal hereditary background than their nonadopted counterparts. Although this argument has a certain compelling quality to it, it should be noted that a later follow-up study to the Horn et al. (1975) investigation found that the more disturbed unwed mothers produced children who were calmer and more secure in their adoptive homes (Loehlin, Willerman, & Horn, 1982). This finding is directly opposed to predictions made by any traditional gene-based explanation of adoption adjustment. On the other hand, according to the investigators, it does fit a gene-environment interaction model, whereby the genetic-based vulnerabilities of the child are suppressed and other more favorable qualities are encouraged within the warm and supportive adoptive family environment (Brodzinsky & Schechter, 1990).

Like genetic endowment, the child's prenatal and genetic history are also assumed to play an important role in adoption adjustment. This assumption is based on the substantial literature documenting the negative impact of prenatal and reproductive complications on postnatal development (Kopp, 1983). Since many of these complications are commonly found among young, unwed mothers (e.g., poor nutrition, poor medical care, substance

abuse, high levels of psychological stress, etc.), and since this group of women accounts for a sizable percentage of the children placed for adoption, it is reasonable to expect that prenatal and reproductive experiences may be important for explaining subsequent developmental problems among adoptees. In support of this assumption, it should be noted that in several studies (Bohman, 1970; Everett & Schechter, 1971; Grotevant, van Dulmen, Dunbar, Nelson, Christensen, Fan, & Miller, 2006; Losbough, 1965; Verhulst, 1992), adoptees have been found to have poorer prenatal histories compared to nonadopted control groups.

At present, there is relatively little information available concerning the extent and the way in which biological factors influence children's adoption adjustment. Within the current model, neither of these factors are assumed to manifest themselves directly. Instead, genetic vulnerabilities and prenatal or reproductive complications are assumed to interact in complex, and currently unknown, ways with a variety of postnatal environmental factors to produce specific patterns of adoption adjustment (Smith & Brodzinsky, 1994). In light of the growing evidence of a genetic basis for a variety of psychopathological conditions, researchers have begun to focus their attention on the role of biological factors in the adjustment of adopted children. As a case in point, consider the findings of Deutsch et al. (1982) and Ijzendoorn et al. (2005), who reported that adoptees are significantly overrepresented among children diagnosed as having attention deficit disorder (ADD). Their data indicated that there was a 32% to 36% chance that a male adoptee would exhibit symptoms of ADD; the comparable figure for female adoptees was 6% to 14%. In attempting to explain the high incidence of ADD among adopted children, the authors noted the substantial amount of alcoholism, sociopathy or psychopathy, and hysteria found among the biological relatives of hyperactive adoptees (Cantwell, 1975). They further noted that ADD,

which has a moderate genetic component (Cantwell, 1975), often persists into adulthood and contributes to the development of sociopathy or psychopathy (Cantwell, 1978). The authors argued that these data, together with the findings of increased psychopathic tendencies in unwed mothers who give up their children for adoption (Horn et al., 1975), provide strong indirect evidence of a genetic basis for the high incidence of ADD among adoptees.

### *Cultural factors*

Within the current model (Fig. 2.1), a number of environmental variables are assumed to have a significant influence on the adjustment of adopted children. Among these variables are a host of demands, constraints, and resources associated with cultural attitudes and practices concerning adoption, as well as with the individual's specific interpersonal adoption experiences within and outside of the family. The child's placement history also is assumed to influence subsequent adoption adjustment.

To begin with, one must consider cultural attitudes concerning adoption. Although adoption is a widely accepted form of substitute care for children whose biological parents could not or would not care for them, there is still a feeling within most cultural groups that it is a "second best route to parenthood" and a "second best way of entering a family" (Carp, 2002; Kirk, 1964, 1981; Lifton, 1979; Sororsky et al., 1978; Wegar, 2000). This attitude is most clearly felt in such comments as, "Isn't it too bad you couldn't have a child of your own" or "You are so special to raise someone else's child. I couldn't do it." Comparable remarks made to adopted children include "Who are your real parents?", "Do you mind being adopted?", and "Why did your real parents give you away?". Adoptive parents and their children report that these insensitive, albeit well meaning comments, which can come not only from relative strangers, but from friends and family members, tend to reinforce in them

a sense of being different and somehow not fitting in. They may even feel defective. Thus to be part of an adoptive family is to be exposed continually to the challenge represented by society's ambivalent attitude about adoption, a challenge that can create considerable stress among adoptive family members (Brodzinsky, 2006; Brodzinsky & Schechter, 1990; Priel, Melamed, Besser, & Kantor, 2000).

Cultural attitudes and beliefs concerning adoption also play a role in the child's adjustment process through the standards, rules, and regulations governing adoption practice. For example, in this day and age, adoption remains primarily a closed system. At the time of legal finalization, the original birth record is sealed, thereby preventing the adoptee from gaining legal access and knowing the truth about his or her origins. Although adoption agencies are beginning to recognize the importance of providing detailed information about birth parents (and their families) to the adoptive family, there still is incredible resistance among adoption professionals to opening up the whole adoption process (Baran & Pannor, 1992). Adoptees often struggle with considerable anger and resentment at the adoption system, which prevents them from developing a fuller sense of who they are (Brodzinsky, Smith, & Brodzinsky, 1998).

#### *Interpersonal factors*

Probably the most important interpersonal factors influencing the adopted child's adjustment are the experiences he or she has with family members. These experiences are related to the general quality of the caregiving environment, the adjustment of adoptive parents, and the way in which adoption issues are communicated between parents and children. In a review of adoption outcome research, Kadushin (1980) noted that children's successful adjustment to adoption was related to two general factors, parental attitudes

toward the child and adoption and the nature of the parent-child relationship. Specifically, acceptance of and satisfaction in adoptive parenthood coupled with a warm and accepting attitude toward the child was generally predictive of positive adoption adjustment. By contrast, parental rejection of the child as well as parental dissatisfaction with adoptive parenthood typically were related to poor adjustment on the part of children. Similar findings have been reported in a longitudinal study on the adjustment of adopted children by Hoopes (1982). These findings, of course, parallel the role of parental caregiving characteristics in the development and adjustment of nonadopted children (Macoby & Martin, 1983).

Other research has implicated the role of adoptive parent adjustment (and the stability of the adoptive family) in the well being of adopted children. For example, a number of studies have noted that the biological vulnerabilities of adopted children are more likely to manifest themselves when one or both adoptive parents suffer from psychopathology, or when there is a history of death, divorce, or desertion within the adoptive family (Brodzinsky & Huffman, 1988; Cadoret, 1990; Schechter, 1970).

In addition to the issue of general parental adjustment, the well being of adopted children is also assumed to be influenced by the parents' response to specific adoption-related issues. Kirk (1964) and, more recently, Brodzinsky and his colleagues (Brodzinsky, 2006; Brodzinsky et al., 1987; Brodzinsky & Huffman, 1988; Ternay et al., 1985; Warren, 1992) have suggested that children's adjustment to adoption is mediated by a host of factors associated with the transition to adoptive parenthood. For example, infertility, the uncertainty of the timing of the adoption process, the intrusiveness of the home study, the stigma associated with adoptive parenthood, and the lack of readily available role models,

among other factors, are viewed by researchers as additional stresses confronting adoptive couples in their transition to parenthood. These stresses could very well have a negative impact on the parent-child relationship in the early years of the family life cycle (Brodzinsky et al., 1986; Hollenstein et al., 2003). Moreover, as children get older, other adoption-related issues confront the family, including telling the child of his or her adoptive status, helping the child cope with a sense of loss, fostering a positive self-image as an adopted person, supporting the child's curiosity and need for information about the birth parents and his or her origins, and potentially handling the issue of searching for birth parents. As Brodzinsky (1987) has noted, these tasks provide the adoptive family with additional challenges that interact with and complicate the more universal tasks of family life. To the extent that adoptive parents are able to confront these issues openly and honestly, it is expected that they will be in a better position to foster more positive adjustment among their children.

Related to these tasks of adoptive parenthood is the way in which parents and children communicate about adoption-related issues. Kirk's (1964) classic social role theory of adoption adjustment suggests that a fundamental issue for adoptive families is the way they handle the inherent differences of adoptive family life. By differences, Kirk means the unique tasks, challenges, and conflicts such as those outlined above that differentiate adoptive from nonadaptive families (Brodzinsky, 2006; Brodzinsky, 1987). According to Kirk, some couples in reacting to the unique challenges of adoptive parenthood try to take the "sting" out of adoption by simulating nonadoptive family life as closely as possible. In their interactions with their child, they communicate the importance of forgetting about being adopted, and all that goes with it, as they themselves try to do. This pattern of behavior has been labeled rejection-of-difference (RD). By contrast, other parents openly confront the



differences associated with adoption. These individuals seek to resolve the challenges and conflict of adoptive family life by more active and direct involvement with the issues. They allow themselves and their children the freedom and opportunity to explore the feelings of being different that occasionally arise in the course of life experiences. Kirk has labeled this pattern acknowledgment-of-difference (AD).

Within Kirk's theory, these two patterns represent a continuum of attitudes and communicative behavior, with the acknowledgment-of-difference pole more often associated with optimal adjustment among family members and the rejection-of-difference pole more often tied to problems in adjustment. Thus Kirk suggests that rejection-of-difference behavior tends to inhibit the development of an accepting and trusting family atmosphere, an atmosphere conducive to open and honest exploration of adoption-related issues. He also suggests that this communicative pattern tends to reinforce in the child the idea that to feel different is to be deviant. In turn, both of these consequences can have a significant impact on the self-esteem and general adjustment of the adopted child (Brodzinsky & Schechter, 1990).

Although Kirk (1964) has suggested a linear relationship between the continuum of acknowledgment-of-difference and the psychological well-being of adoptive family members, Brodzinsky (2006, 1987) has argued that the relationship actually is curvilinear. That is, parents who adopt extreme views at either end of the belief continuum are assumed to foster poorer adjustment among their adopted children.

To date, attempts to test Kirk's theory of adoption adjustment have yielded mixed results. In his original work, Kirk (1964) reported that parents who were characterized by an AD pattern were more likely to be empathic to their child's feelings, to think more often

about the child's birth parents, to feel greater satisfaction as adoptive parents, and to communicate more openly with their children. No measure of the child's adjustment, however, were included in the study. Carroll (1968) also examined the relationship between adoptive parents' coping strategies and aspects of their personal adjustment. He noted that prospective adoptive parents who tended to use an AD coping strategy were more likely to report dissatisfaction with selective aspects of their self-concept compared with individuals who used an RD strategy. Although this result would appear to contradict Kirk's position, Carroll has argued that "the intensity and scope of their [AD subjects] expressed self dissatisfactions...were well within the limits of 'normality' and seemed logically to reflect a more realistic and genuine self appraisal" (p. 114). Thus Carroll interpreted these results as supportive of Kirk's social-role theory of adoption adjustment.

Several more recent studies have examined the relationship between adoptive parent coping strategies and children's adjustment. For example, Brodzinsky and Reeves (1987) found that adoptive mothers who displayed an ID (insistence-on-difference) coping pattern had children who were rated lower in social competence and higher in behavior problems than children whose mothers adopted either an AD, RD, or mixed AD-RD pattern. Furthermore, mothers who adopted an ID pattern also rated their children, as well as themselves and their spouses, as less well adjusted to adoption than mothers who displayed the other three coping styles. Finally, mothers who displayed an RD pattern scored higher on the Crowne-Marlowe social desirability scale than mothers who displayed either an AD or an ID pattern, thereby suggesting that rejection-of-difference may be part of a more global defensiveness pattern within certain adoptive parents rather than a pattern that is specific to adoption-related matters (Brodzinsky et al., 1986).

## CHILDREN'S COPING EFFORTS

Although clinical experience suggests that children manifest a wide range of coping behaviors in dealing with their adoption experiences, to date, there has been no systematic empirical work in this area (Brodzinsky et al., 1992; Smith & Brodzinsky, 1994). In fact, examination of developmental trends in children's coping behavior in areas other than adoption has only lately been undertaken (Band & Weisz, 1988; Curry & Russ, 1985; Wertlieb, Weigel & Feldstein, 1987). This research suggests that children as young as six years are aware of stress in their lives and are able to report on specific efforts to cope with it. The data also indicate that children more often utilize problem-solving rather than emotion-management strategies, as well as those strategies involving overt and direct modes of action. Conversely, as children get older there is increased use of emotion-management and intrapsychic modes of coping. Not surprising, the findings also suggest that the use of coping strategies varies considerably from one situation to another (Band & Weisz, 1988).

Band's and Weisz's research results are in line with clinical observations of the coping behaviors of adopted children. When children are first informed of their adoptive status, there is much question asking. Information regarding the birth parents and the reasons for the relinquishment typically are sought from the adoptive parents. In addition, children often seek emotional support from their parents. By contrast, strategies for regulating or managing emotions are less often seen in this early phase of adoption adjustment. As children enter middle childhood, however, there is a gradual increase in emotion-focused coping. Denial, avoidance minimization, reappraisal, and so forth are just some of the strategies commonly used by children in their effort to cope with adoption-related stresses (Brodzinsky & Schechter, 1990; Brodzinsky, Smith, & Brodzinsky, 1998; Smith & Brodzinsky, 1994). To a

great degree an increase in emotion-focused coping probably reflects a growing recognition on the part of the child that little can be done to change or modify the circumstances represented by their adoptive status (Lazarus & Folkman, 1984).

### STRESS AND ADAPTATIONAL OUTCOMES

The most useful approach to understanding stress as it would relate to adoption has been offered by Lazarus and his colleagues (Lazarus, DeLongis, Folkman, & Gruen, 1985; Lazarus & Folkman, 1984). This approach not only considers the interaction of stimulus and response components of stress, but also incorporates cognitive appraisal processes, coping style and defense mechanisms, and the social context into a comprehensive model of the role of stress in the development of physical and psychological illness. Lazarus and his colleagues also argue that cognitive appraisal processes and coping strategies are highly influenced by a host of person and environmental variables. These could include the individual's values, commitments, goals, and general beliefs, self-esteem, mastery, sense of control, and interpersonal trust. These variables are assumed to interact with various environmental demands, constraints, and resources (e.g., social supports) to produce divergent appraisals as to whether the stimulus event in question is potentially stressful, and if so, what the child can do to cope with it. Thus in integrating person variables with the environmental conditions being faced, cognitive appraisal processes provide the bases of individual differences in response to psychological stress reactions (Lazarus et al., 1985).

### LOSS AS A SOURCE OF STRESS IN ADOPTION

It is a primary assumption that adoption involves loss, which, in turn, creates stress for the child and thereby increases his or her vulnerability for emotional and behavioral problems (Brodzinsky, Schechter & Henig, 1992; Smith & Brodzinsky, 2002). In the past

this idea has primarily been associated with adoption placements involving the separation of an older child from a caregiver with whom he or she has an attachment relationship (Bowlby, 1969; Fahlberg, 1979; Jewett, 1978; Nickman, Rosenfeld, Fine, McIntyre, Pillowsky, Howe, Derdeyn, Gonzales, Forsythe, & Sveda, 2005; Rushton & Dance, 2006; Steinhauer, 1983). The experience of loss among adopted children placed as infants has often gone unrecognized by mental health professionals. In recent years, though, adoption specialists have come to appreciate the unique role played by loss in the psychological adjustment of even those children given homes when they were infants (Brinich, 1980; Brodzinsky, 1987; Nickman, 1985; Smith & Brodzinsky, 2002). Loss associated with early adoption has been defined as "covert" (Nickman, 1985) and subtle, and emerges slowly with time in conjunction with the child's growing awareness of the meaning and implications of having been adopted (Brodzinsky, 1987). This form of loss is considered to be chronic, less traumatic and not as likely to lead to psychopathology by itself, but increases the child's vulnerability to other pathogenic experiences (Brodzinsky et al., 1981; Brodzinsky et al., 1992; Brodzinsky, Smith, & Brodzinsky, 1998; Brown & Harris, 1978; Costello, 1982).

In stating that adoption involves loss, it should be made clear exactly what this loss entails. Adopted children, once they come to realize the implications of being adopted, not only experience a loss of their biological parents and origins, but also a loss of stability in the relationship to their adoptive parents (Brinich, 1980; Brodzinsky, 1987; Nickman, 1985; Smith & Brodzinsky, 2002; Wegar, 2002). In addition, there is loss of self (Brodzinsky, 1987) and genealogical continuity (Carp, 2002; Sants, 1964). Adopted children also experience "status loss" associated with being different (Carp, 2002; Kirk, 1964; Lifshitz, Baum, Balgur, & Cohen, 1975; Nickman, 1985; Wegar, 2000). These various perceived

losses often leave the adoptee feeling incomplete, alienated, disconnected, abandoned, or unwanted. Furthermore, the sense of loss typically leads to a characteristic pattern of emotional and behavioral reactions commonly associated with grieving (Bowlby, 1973, 1980). In fact, Brodzinsky (1987) has suggested that much of what has been called pathogenic in the adopted child's behavior is nothing more than the unrecognized manifestation of an adaptive grieving process.

### LOSS IN ADOPTION

Brodzinsky and Schechter (1990) have maintained that the loss associated with adoption differs from more common forms of family disruption such as divorce and parental death on at least six different dimensions (Wallerstein, 1983). These dimensions are: universality, permanence, relationship to the lost person, voluntary nature of the disruption, pervasiveness, and societal support.

Considering the first dimension of universality, death is a universal experience. Not only will we all die, but in the process of growing up it is inevitable that we will be exposed to the death of significant others such as grandparents, parents, friends, and acquaintances. By contrast, divorce and adoption, like most other losses, are not universal experiences. Presently, divorce is so common in our society that nearly all children whose parents separate and eventually divorce know others who have had similar experiences. This is often not the case in adoption. Because relatively few children in our society are adopted (1-2%), there is a greater likelihood that adoptees will feel more alone with their losses. In turn, this may well foster feelings of "differentness" that can undermine self-esteem and psychological well-being.

Adoption and divorce also differ from parental death in terms of their permanence. On the one hand, loss due to death is final and irreversible. Although young children do not understand the concept of death, by the time they reach the early elementary school years they generally have mastered it (Speece & Brent, 1984). On the other hand, most children recognize that loss due to divorce and adoption are at least potentially reversible, for the non-custodial parent (in divorce) and the "surrendering" parents (in adoption) usually are alive. Certainly, hope of reunion with the lost person is a theme of much of the fantasy life of children who experience divorce and adoption. In divorce, this hope often is reinforced by the ongoing contact between the child and the non-custodial parent. Although such contact can make it difficult at first for the child to acknowledge the reality of the divorce, in the long run it typically fosters healthier adjustment on the child's part than in cases where the child has little, if any, contact with the non-custodial parent. Adopted children also fantasize about "undoing" their loss. Fantasies about reunions with birth parents are extremely common among adopted children as they are growing up. The fact that these fantasies potentially can come true may well serve to impede the resolution of loss among many adopted individuals (Brodzinsky, Schechter & Henig, 1992; Weider & Herbert, 1977).

A third dimension differentiating adoption from divorce and death is the child's relationship with the lost person. Children who experience the death of a parental generally have a history of interaction with these individuals. Consequently, there are memories of the circumstances surrounding the parent's death that can be drawn on in coming to terms with the loss. In divorce, too, there typically is a history of relationship with the lost parent, as well as a history of experiencing various conditions of family life that may have contributed to parental divorce. These experiences, along with the possibility of an ongoing relationship

with the non-custodial parent, can make it easier for the child to understand the basis of the loss, and therefore, how to come to terms with it. Adopted children, in contrast are at a disadvantage in comparison to other children who have lost parents. Because the original relinquishment typically occurs in infancy, adoptees seldom have memories of their birth parents and the circumstances surrounding their adoptive placement. They also are frequently prevented from gaining greater insight into their past because of the adoptive parents' anxiety in discussing the relinquishment, as well as the reluctance and legal constraints of agencies to share relevant information with the adoptive family. As a result, that which is lost to the adopted child is often unknown. This lack of knowledge tends to foster the child's misperceptions and distortions of the birth parents and the circumstances of the relinquishment. As a result, the lost birth parents often linger as "ghosts" in the mental and emotional life of adopted persons, and can prevent them from achieving some satisfactory resolution of their loss (Brodzinsky et al., 1992; Brodzinsky, Smith, & Brodzinsky, 1998).

The issue of whether the loss was the result of voluntary versus involuntary circumstances also is a dimension that differentiates these various forms of family disruption. Adoption and divorce, unlike death, involve presumed voluntary decisions on the part of the parents. As Wallerstein (1983) notes, this knowledge can be a burden for the child, and foster feelings of intense anger toward the parents. It also can be the basis of considerable guilt and self-blame. Although anger and guilt are also seen in children's response to parental death, these reactions usually are less intense and less prolonged probably because they are not reinforced by the very real possibility of restoration represented by living parents.



Although adoption, divorce, and death all involve loss, the extent of the loss experienced by the child is greater in adoption. In death, there is a permanent loss of a single parent. Divorce, too, involves the loss of a single parent, although this loss typically is not permanent and may be partially "undone" through regular visitation. Furthermore, it is common for children who experience parental death and divorce to feel some sense of family loss, although the presence of the surviving parent or the custodial parent, as well as siblings and other extended family, helps to offset this feeling. In adoption, the loss is more pervasive, although perhaps less obvious. Not only do adopted children experience the loss of birth parents and the extended birth family as well as the loss of cultural and genealogical heritage, but for many adoptees there is a loss of a sense of permanence in, and connectedness to, their adoptive family, as well as a loss of self and social status.

A final dimension differentiating these forms of family disruption concerns the extent of societal and community acknowledgment of loss and the support offered to the bereaved person. Death is a universally recognized loss. Every society and culture not only acknowledges the loss involved in death, but provides a variety of rituals and supports to help the individual both acknowledge and mourn the loss. By contrast, mental health professionals have noted the lack of readily available supports to help the child deal with divorce-related losses (Wallerstein, 1983; Wallerstein & Kelly, 1980). In a similar vein, those children who experience loss because of adoption are often lacking in the necessary rituals and emotional support that would help them move through the mourning process. In fact, Brodzinsky would argue that public recognition and acceptance of loss in adoption is even less than in the case of divorce (Brodzinsky, Schechter & Brodzinsky, 1986).

Although adoption, parental divorce, and parental death all involve significant loss for the child, the nature of the loss differs considerably in each of these circumstances. The pervasiveness of loss in adoption, coupled with the diminished societal recognition and support for this loss, as well as the realization that restoration of a relationship with the lost individuals is a possibility, combine to complicate the grieving process for the adoptee.

In order to explain the individual variation in adopted children's behavior and development, a relatively new model of adoption adjustment has been proposed (Fig. 2.1). This model represents an integration of the work of Lazarus and his colleagues (Lazarus & Folkman, 1984) in the area of stress and coping, and Brodzinsky's work on cognitive-developmental factors in adoption adjustment (Brodzinsky & Schechter, 1990; Brodzinsky, Smith, & Brodzinsky, 1998). At the core of the model is the assumption that children's adjustment to adoption rests on their appraisal of, and efforts to cope with, a host of subtle but pervasive adoption-related losses.

Brodzinsky and Schechter (1990) have proposed that children's adoption adjustment is linked to the cognitive-appraisal process, including the child's positive or negative attribution towards being adopted. Singer et al. (1982) have reported that by eight years of age most adopted children experience considerable ambivalence about being adopted. It is during this time of middle childhood that a number of studies have found adoptees experiencing a higher level of behavioral maladjustment and lower levels of both academic achievement and social competence in comparison to nonadoptees (Wood, 2002; Slap, 2001; Stams, 2000; Miller, 2000; Ingersoll, 1997; Jerome, 1993; Borders, 1998; Brand & Brinich, 1999; Cohen, 1993; Bohman, 1970; Brodzinsky, et al. 1984; Brinich, 1980; Hoopes, 1982; Lindholm & Touliatos, 1980; Zill, 1985). In addition, Singer et al. (1982) reported that as

adopted children get older, their feelings become significantly more negative about adoption. Other professionals have observed that as adopted children grew older there was an increase in anger, depression, aggression, oppositional behaviors and uncommunicativeness (Brinich, 1980; Brodzinsky, 1987; Nickman, 1985; Verhulst & Versluis, 1994). Brodzinsky and Schechter (1990) have maintained that the increase in these behaviors is due to important changes over time that enhance children's reasoning ability allowing them a more sophisticated understanding of adoption. They contend that it is this increased ability to process complex adoption information that accounts for adopted children's progressively negative attitude towards adoption as they get older.

Research to date has explored the cognitive-appraisal process of adopted children towards their adopted status and the prevalence of clinical symptomatology separately however, these studies have not addressed how this may affect adopted children's self-appraisal and the relationship between their self-appraisal and behavioral outcomes. Also, the studies cited to date have taken a restricted age range view of children's perceptions and adopted children's maladaptive behavior, most relying on clinical populations. It is not clear if there are differences between a non-clinical population of adopted children and nonadopted children in self-appraisal and behaviors, and whether self-appraisal and behavior become more negative over time as a function of an adopted child's increasing understanding of adoption. For instance, do adopted children have a more negative self-appraisal and exhibit more problematic behaviors than nonadopted children? Do adopted children's self-appraisal and behavior become more negative over time as their ability to understand adoption increases? Is there a relationship between adopted children's self-appraisal and their behavior?

## PURPOSE OF THE STUDY

The purpose of this study was to investigate and compare adopted and nonadopted children's cognitive appraisal of self, their adaptation and behavioral outcomes using a non-clinical sample between the ages of six to thirteen. A key interest was to examine the relationship among children's adoptive status, their perceptions of self, and the wide range of behaviors they exhibit in coping with adoption-related stresses and whether these behaviors vary significantly from their nonadopted counterparts. Such information may be of value in developing effective interventions to increase adaptive outcomes for adopted children and their families.

In this study, adopted and nonadopted children were interviewed using a Self-Appraisal scale to determine the level of their positive/negative appraisal of self as an adopted or nonadopted child, and their mothers completed behavioral rating scale. The following questions investigated whether there were differences in the self-appraisal and behaviors of adopted and nonadopted children, and whether these differences changed with the age of the children.

## RESEARCH QUESTIONS

Question 1: *Are adopted children characterized by greater negative self-appraisal and more problematic behaviors than nonadopted children?*

Brodzinsky and Schechter (1990) have proposed that children's adoption adjustment is linked to the cognitive-appraisal process, including the child's positive or negative attribution toward adoption. Singer et al. (1982) has reported that by eight years of age most adopted children experience considerable ambivalence about being adopted. It is during this time of middle childhood that a number of studies have found adoptees experiencing a higher level

of behavioral maladjustment and lower levels of both academic achievement and social competence in comparison to nonadoptees (Bohman, 1970; Brodzinsky, et al., 1984; Brinich, 1980; Hoopes, 1982; Ijzendoorn, 2005; Lindholm & Touliatos, 1980; Zill, 1985).

Question 2: *Does the self-appraisal of adopted children become more negative and do they exhibit more problematic behaviors as they become older?*

Singer et al. (1982) reported that as adopted children get older, they become significantly more negative about adoption. Other professionals have observed that as adopted children grew older there was an increase in anger, depression, aggression, oppositional behaviors and uncommunicativeness (Brinich, 1980; Brodzinsky, 1987; Howard et al., 2004; Fergusson et al., 1995; Nickman, 1985; Verhulst & Versluis, 1994; Wilson, 2004). Brodzinsky and Schechter (1990) have maintained that the increase in these behaviors is due to important changes over time that enhance children's ability to reason that allows them a more sophisticated understanding of adoption. They contend that it is this increased ability to process complex adoption information that accounts for adopted children's progressively negative attitude towards adoption as they get older.

Question 3: *Is there a relationship between adopted children's self-appraisal and their behavior?*

Research to date has separately explored the cognitive-appraisal process of adopted children and the prevalence of clinical symptomatology, but these studies have not addressed the relationship between these two variables. For the development of effective prevention and interventions to be considered, more empirical information regarding the impact of the cognitive-appraisal of adopted children is needed.

## **CHAPTER 3**

### **METHOD**

#### **PARTICIPANTS**

A total of 80 adopted and 80 nonadopted children and their mothers participated in the study. Children in both categories were grouped into 4 age ranges of 20 children with equal numbers of boys and girls. The age ranges are 6-7, 8-9, 10-11, and 12-13 year olds (Table 3.1). Adopted children were identified by a database provided by the North Carolina Children's Home Society and the Virginia Children's Home Society. Nonadopted children were recruited by letter in the elementary and middle schools of Lynchburg, Virginia and at open Parent Teacher Organization meetings also in Lynchburg. Because the intention of this study was to focus on a non-clinical population, children were not included if they had experienced a significant family disruption within the year prior to data collection (i.e., parental separation, divorce, or death of a family member) or if they had severe physical or mental handicaps or severe psychopathology as determined by an IEP or information provided by a parent.

Table 3.1 Demographics

		N	Adopted	NonAdopted
Gender	Male	80	40	40
	Female	80	40	40
Age Groups	6-7	40	20	20
	8-9	40	20	20
	10-11	40	20	20
	12-13	40	20	20

All adopted children were aware of their adopted status and were able to differentiate between birth and adoption as alternative ways of becoming part of a family. All adopted and nonadopted children were Caucasian, as were their parents. For adopted children, the age of placement did not exceed 12 months from date of birth (Table 3.2).

Table 3.2 Age at Placement

<u>Age at placement</u>	<u>N</u>
<1 month	47
<3 months	11
<6 months	2
<9 months	9
<12 months	11

In addition, 76 of the adopted children resided in 2 parent homes as compared to 68 nonadopted children. Seventy-one adopted children lived with siblings, with 51 having only siblings that were also adopted, 12 having siblings that were biological to their adoptive parents, and 8 having both biological and adopted siblings. Sixty-nine nonadopted children lived with siblings.

## PROCEDURES

The procedures for conducting this study were reviewed and approved by the Institutional Review Board of the University of North Carolina at Chapel Hill. Parental consent for participation in this study was obtained through parent letters, which described the purpose of the study. These letters were sent by the Children's Home Societies of North Carolina and Virginia and to the homes of all elementary and middle school children in the Lynchburg, Virginia school system. The consent form explained that participants would be assured that participation was voluntary, that responses would be kept confidential, and that students could choose not to participate at any time without negative consequences. Parents indicated by email or in writing on a post paid card whether they were interested in participating in the study with their child and how they could be contacted.

In the data collection sessions, the 32 questions on the self-appraisal scale were verbally presented to the children in their home by the researcher while mother's completed a 118 item behavior checklist in another room.

## MEASURES

Two types of measures were used for data collection: child self-report and mother's report.

### *Measure of self-report*

Self-report information was collected from each child by interview using a modified version of the Adoption Belief Scale, now referred to as the Self-Appraisal Scale in this study. The Adoption Belief Scale (Singer, Brodzinsky and Braff, 1982) was developed to assess children's beliefs about self in the context of their adopted or nonadopted status. The Adoption Belief Scale consists of 32 items covering various areas of adjustment. Half of the items on the belief scale are positively valued (e.g., makes friends easily; feels good about



self) and half are negatively valued (e.g., fights with other children; disobedient). A number of studies provide support for the discriminant and construct validity of the scale (Brodzinsky, 1982; Brodzinsky, Pappas, Singer & Braff, 1981; Brodzinsky, Singer, & Braff, 1982). Singer identifies three broad-band categories within the scale that were found to be reliable and theoretically meaningful: intellectual/academic competence, emotionality and self-reflection, and social competence (including both social acceptance and prosocial/antisocial behaviors). A four month test-retest reliability coefficient on the Adoption Belief Scale averaged .95 on a sample of 334 adopted and nonadopted children ages six to thirteen years. Coefficient alpha for the subscales ranged from .78 to .89. There was also a significant Age x Adoption Status interaction that showed with increasing age the beliefs of adopted children concerning adoption became significantly less positive, whereas the beliefs of nonadopted children became more positive. For this study, the interview with the children was modified from its original wording to measure the child's appraisal of self, rather than their appraisal of adoption. These changes were made in an effort to minimize possible distress to the adopted children caused by asking them to compare adopted and nonadopted children. In the modified version, children were asked to state whether a behavior or trait mentioned by the interviewer was more characteristic of him/ herself, other children, or whether it was just as likely to be characteristic of him/herself and others, without specifying adoption status.

Children's responses were scored in the following manner: Any response that reflected positively on the participant or negatively on other children was given a score of 1. A score of 0 was assigned whenever the participant expressed no difference between him/herself and other children for a specific behavior or trait. Finally, a score of -1 was

assigned when the participant's response to an item favored the other children or reflected negatively on him/herself. Thus positive scores imply that the subject perceived him/herself as better adjusted than other children, whereas negative scores reflected the opposite trend. Scores of 0 indicated no differentiation in the perceived adjustment of the subject and other children. A summary score was derived by averaging the 32 individual item scores, resulting in a score ranging between -1 and 1. The interview took approximately 30 minutes to administer.

Table 3.3 Self-Appraisal Scale

*Sample items from the revised Adoption Belief Scale (Singer, Brodzinsky & Braff, 1982)*

---

Do you think you

---

1.     are happier than other children  
       are less happy than other children  
       are about as happy as other children
  
  2.     give up more easily than other children  
       give up less easily than other children  
       give up about as easily as other children
  
  3.     spend more time alone than other children  
       spend less time alone than other children  
       spend about the same amount of time alone as other children
- 

*Measure of mother's report*

Mothers of the children in the study completed the Child Behavior Checklist (Achenbach, 1991). The Child Behavior Checklist was chosen because it provides a clear, empirically validated criterion for maladjustment by defining clinically significant maladaptation. One of the shortcomings in adoption research, especially studies using non-clinical populations, is a tendency to analyze personality measures or behavior problem

indexes without a clear criterion for maladjustment. Therefore, while adopted children may score significantly higher than non-adopted children on these measures, they may only be exhibiting more extreme forms of behavior or personality traits that are still within the normal range. The Child Behavior Checklist defines clinically maladaptive behavior as a T score greater than 70 (the 98th %ile), with a normalized T score having a mean of 50 and a standard deviation of 10. The Child Behavior Checklist is designed to assess the behavior problems of children ages 4 through 18 in a standardized format as reported by their parents. The 118 behavior problem items are grouped into eight factor-analyzed scales placed on an Internalizing-Externalizing continuum. The eight syndrome scales include Aggressive Behavior, Anxious/Depressed, Attention Problems, Rule Breaking Behavior, Social Problems, Somatic Complaints, Thought Problems, and Withdrawn/Depressed. The 118 items on the Behavior Problem section are rated on a 3-point scale, which references the child's behavior currently or in the last six months. A score of 0 indicates that the behavior is not true of the child, a score of 1 means it is sometimes true, and a score of 2 indicates the behavior is often true. Test-retest reliability for non-referred samples that Achenbach (1991) reported is generally very high. One-week test-retest reliability for the total behavior problems was .93 with inter-parent agreement of .76. The checklist took mothers approximately 45 minutes to complete.

Table 3.4 Child Behavior Checklist Sample

*Sample questions from the Child Behavior Checklist (Achenbach, 1991)*

	0=Not True	1=Sometimes True	2=Often True
Acts too young for his/her age	0	1	2
Argues a lot	0	1	2
Fails to finish things he/she starts	0	1	2

## DATA ANALYSIS PLAN

The present study investigated the self-appraisal and behaviors of adopted children as compared to nonadopted children, and whether self-appraisal and behaviors changed as adopted children became older. Preliminary analyses included an investigation of self-appraisal of adopted and nonadopted children as rated by self-report. Participants were also identified as having clinically significant behavior problems on the basis of a behavior rating scale completed by the mother. Analyses were run to determine if significant differences existed between adopted and nonadopted children regarding self-appraisal and behavior. Further analyses explored age group differences of the adopted children for self-appraisal and behavior. Finally, an analysis was run to determine the relationship between self-appraisal and behavior.

## RESEARCH QUESTIONS

Question 1: Are adopted children characterized by greater negative self-appraisal and more problematic behaviors than nonadopted children?

### *Hypotheses for Question 1*

- A) Adopted children's self-appraisal will be lower than nonadopted children.*
- B) Adopted children will have more problem behaviors than nonadopted children.*

### Statistics for Question 1

An independent T test was planned in order to statistically determine whether or not adopted children differ from nonadopted children in terms of their self-appraisal. Analysis using a two-way ANOVA was also conducted to determine if there was a significant effect of adoption status on self-appraisal. A MANOVA was performed to determine whether or not there was a significant difference between adopted and nonadopted children's behaviors.

Question 2: Does the self-appraisal of adopted children become more negative and do they exhibit more problematic behaviors as they become older?

*Hypotheses for Question 2*

*A) Older adopted children will have more negative scores on the Self-Appraisal Scale than younger adopted children.*

*B) Older adopted children will have higher Child Behavior Checklist Total T scores than younger adopted children.*

Statistics for Question 2

A two-way ANOVA using a grouping variable with age was planned to examine the effect of age and adoption status on self-appraisal and behavior.

Question 3: Is there a relationship between adopted children's self-appraisal and their behavior?

*Hypothesis for Question 3*

*A) There will be a negative relationship between adopted children's Self-Appraisal scores and Child Behavior Checklist total T scores.*

Statistics for Question 3

Pearson's correlation analysis was planned to determine the strength and direction of the relationship between adopted children's self appraisal and their behavior.

## CHAPTER 4

### RESULTS

The results are presented in the following sections and address the three hypotheses in the order described in the Method section. Prior to a presentation of the test of the hypotheses, descriptive statistics are provided in table 4.1 for participants in the study. As the table indicates, the mean range for Self-Appraisal was -.011 to .427, with all adopted children exhibiting a negative valence and all nonadopted children showing a positive valence. The Child Behavior Checklist means ranged from 39.69 to 56.40, with adopted children exhibiting higher means in every age group.

Table 4.1 Summary Statistics of Child Variables

Age Groups	Adoption Status	N	Self-Appraisal Scale		Child Behavior Checklist	
			Mean	Std Deviation	Mean	Std Deviation
6 to 7	Adopted	20	-.011	.245	51.75	12.55
	Non-Adopted	20	.327	.301	44.00	8.55
8 to 9	Adopted	20	-.124	.277	56.25	11.86
	Non-Adopted	20	.408	.194	43.38	10.41
10 to 11	Adopted	20	-.194	.231	56.40	14.48
	Non-Adopted	20	.427	.251	39.68	8.59
12 to 13	Adopted	20	-.141	.295	55.80	15.24
	Non-Adopted	20	.444	.273	42.85	9.28

Research Question 1: Are adopted children characterized by greater negative self-appraisal and more problematic behaviors than nonadopted children?

*Hypothesis 1A*

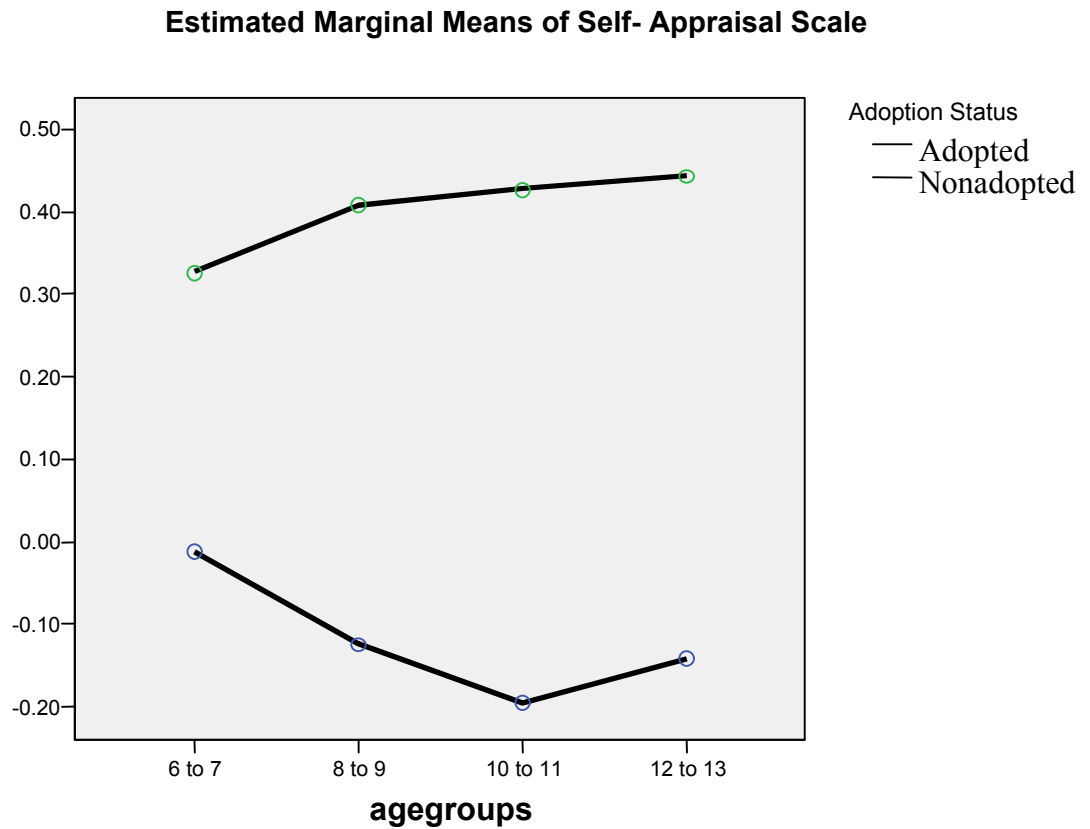
*Adopted children's self-appraisal scores will be lower than those of nonadopted children.*

An independent T test was calculated using Self-Appraisal Scale scores for adopted and nonadopted children as shown in Table 4.2. There was a significant difference between adopted and nonadopted children on the self-appraisal measure,  $t(df158)=12.530$ ,  $p<.001$ , with nonadopted children scoring significantly higher (Fig. 4.1). The results confirm the hypothesis that adopted children have lower self-appraisal than nonadopted children and view themselves less positively when comparing themselves to other children.

Table 4.2 Self-Appraisal Scale Statistics

Adoption Status	N	Mean	SD	Std. Error Mean	t	df	Sig (2-tailed)
Adopted	80	-.1176	.26721	.02987	-12.530	158	.000
Non-Adopted	80	.4015	.25673	.02870			

Figure 4.1 Estimated Marginal Means of Self-Appraisal Scale



*Hypothesis 1B*

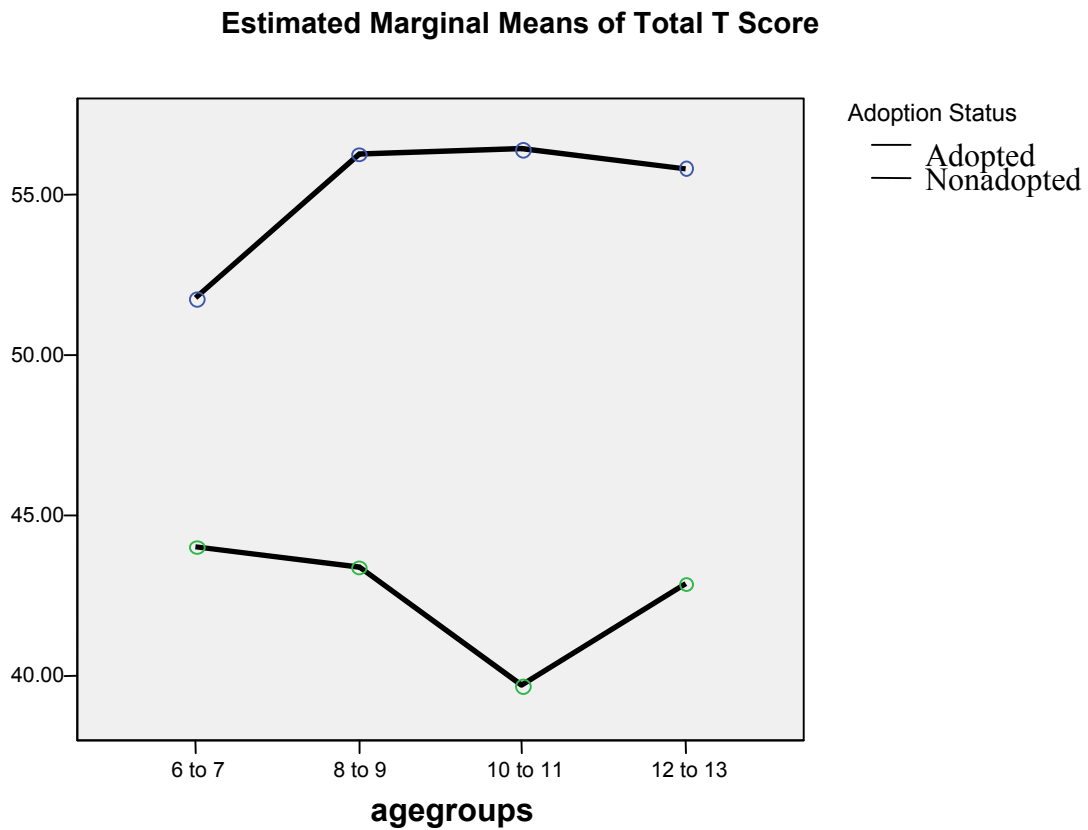
*Adopted children will have more problem behaviors than nonadopted children.*

A MANOVA was performed to test the hypothesis of differences in Child Behavior Checklist Total T scores between adopted and nonadopted children. As shown in table 4.3, Hotellings T was significant,  $F(17,142)=4.521$ ,  $p<.001$ . A partial Eta Squared of .351 indicates that roughly 35% of the variance of Total T scores is explained by adoption status.



These results support the hypothesis that adopted children are viewed as having significantly more behavior problems than nonadopted children (Fig. 4.2).

Figure 4.2 Estimated Marginal Means of Total Score



Follow up tests were performed on the Internalizing and Externalizing T scores and the six subscale Problem Behavior T scores. As shown in Table 4.3, significant differences were found between adopted and nonadopted children on all subscales except for somatic complaints. In addition, while no nonadopted children scored within the Borderline or Clinical Total T score range, 9% of the adopted children had Borderline Total T scores and 26% had Clinical Total T scores. The results indicate that mother's of adopted children

viewed them as exhibiting significantly more problematic behaviors, more often, across a wide range of behaviors as compared to mother's of nonadopted children.

Table 4.3 Child Behavior Checklist Statistics

	Adopted		Non-Adopted		F	sig.
	M	SD	M	SD		
Total Clinical T	55.05	13.48	42.52	9.23	46.96	<.001
Internalizing T	53.95	11.74	43.96	8.79	37.04	<.001
Externalizing T	55.43	13.41	42.95	8.97	47.91	<.001
Subscales:						
Anxious/Depressed	57.41	9.73	51.85	3.54	23.05	<.001
Withdrawn/Depressed	57.5	9.45	51.52	2.64	29.61	<.001
Somatic Complaints	55.28	6.65	53.00	5.14	5.91	.016
Rule Breaking	56.71	7.73	52.10	4.00	22.43	<.001
Aggressive	59.83	11.64	51.18	3.80	33.97	<.001
Social Problems	58.32	10.26	51.37	2.65	34.37	<.001
Thought Problems	56.62	9.20	51.70	3.27	20.34	<.001
Attention Problems	59.82	10.67	52.41	3.53	34.72	<.001
Affective Problems	57.86	8.62	51.77	3.59	33.97	<.001
Anxiety Problems	56.37	8.35	51.96	3.64	18.73	<.001
Somatic Problems	54.28	6.73	53.07	5.39	1.57	.211
ADHD Problems	58.18	8.95	52.03	3.68	32.28	<.001
ED Problems	57.85	8.29	51.91	3.73	34.03	<.001
Conduct Problems	58.1	9.65	51.96	4.35	26.83	<.001

Research Question 2: Does the self-appraisal of adopted children become more negative and do they exhibit more problematic behaviors as they become older?

*Hypothesis 2A*

*Older adopted children will have more negative scores on the Self Appraisal-Scale than younger adopted children.*

A two way ANOVA with age and adoption status as grouping variables was conducted to determine if there was a significant effect of adoption status and age (IV) on Self Appraisal Scale scores (DV). The interaction between adoption status and age was not

significant  $F=2.336$ ;  $p=.076$ . There was no significant difference, as the scores were similar across age groupings  $F=.193$ ;  $p=.901$ . Figure 4.1 indicates only a moderate trend toward more negative self-appraisal as adopted children get older. These results therefore do not support the hypothesis that older adopted children have more negative self-appraisal than younger adopted children.

*Hypothesis 2B*

*Older adopted children will have higher Total T scores than younger adopted children on the Child Behavior Checklist.*

A two way ANOVA with age and adoption status as grouping variables was conducted to determine if there was a significant effect of adoption status and age (IV) on the Child Behavior Checklist Clinical Total T scores (DV). The interaction between adoption status and age was not significant  $F=.989$ ;  $p=.400$ . There was no significant age effect, as the scores were similar across age groupings  $F=.270$ ;  $p=.847$ . The results did not confirm the hypothesis that older adopted children are rated as having more behavior problems than younger adopted children. For these particular adopted children, it appears there was no developmental influence affecting either their self-appraisal or behavior.

Research Question 3: Is there a relationship between adopted children's self-appraisal and their behavior?

*Hypothesis 3*

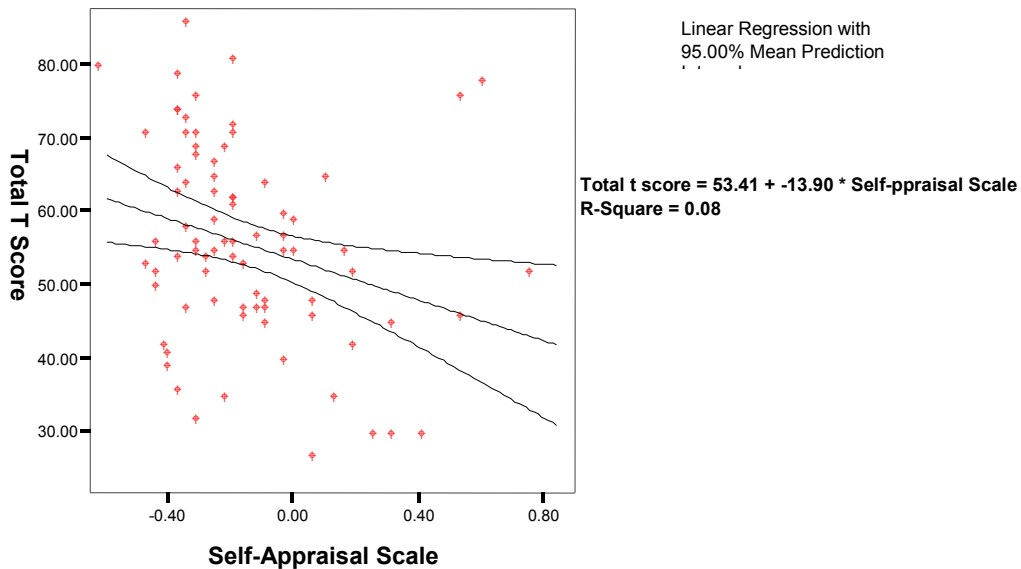
*There will be a negative relationship between adopted children's Self-Appraisal scores and Child Behavior Checklist Total T scores.*

Pearson correlation coefficients were calculated for adopted children's Self-Appraisal Scale scores and Child Behavior Checklist Clinical Total T scores. There was a

significant negative relationship between the Self-Appraisal Scale scores and Child Behavior Checklist Clinical Total T scores,  $r(79)=-.275$ ;  $p<.001$ .

As shown in figure 4.3, adopted children in general had lower Self-Appraisal Scale scores and higher Child Behavior Checklist Total T scores than the nonadopted children. These results provide support for the hypothesis that adopted children with negative self-appraisal are more likely to have increased behavior problems.

Figure 4.3 Linear Regression



## CHAPTER 5

### DISCUSSION

The current study was designed to explore and compare adopted and nonadopted children, using a non-clinical sample of children ages six to thirteen. Analyses investigated age group and adoption status differences on a measure of children's self-appraisal and behavioral adjustment. This study was conducted in order to increase understanding of adoption adjustment and coping by using standardized measures that provide empirically validated criterion for maladjustment.

Three main research questions were posed, followed by three specific hypotheses:

Question 1: Are adopted children characterized by greater negative self-appraisal and more problematic behaviors than nonadopted children?

*Hypotheses for Question 1:*

*A) Adopted children's self-appraisal will be lower than nonadopted children.*

*B) Adopted children will have more problem behaviors than nonadopted children.*

Results provided support for both the hypotheses, showing adopted children had significantly lower self-appraisal scores and significantly more behavior problems than nonadopted children. This would indicate that adopted children view themselves significantly less positively when comparing themselves to other children than do nonadopted children. This complements findings of other studies that have shown that

adopted children exhibit more socially disturbed behavior (Feigelman & Finley, 2004; Howard et al., 2004; Wood, Cowan & Baker, 2002) and are rated by peers as more rejected than nonadopted children (Juffer, Stams, & Ijzendoorn, 2004).

Adopted children also exhibited significantly more problematic behaviors than nonadopted children. Adopted children had significantly higher Total T scores, Internalizing T scores, Externalizing T scores, and five of the six specific problem behavior T scores. The only T score not showing significant differences between adopted and nonadopted children was the T score for somatic complaints, mirroring a similar study by Stams, Juffer, Rispen, & Hoksbergen (2000). It is also interesting to note that while no Borderline or Clinical Total T scores were found for nonadopted children, 9% of the adopted children had a Borderline Total T score and 26% had a Clinical Total T score. Stams et. al (2000) showed similar patterns, with 33% of adopted children having a Clinical Total T score as opposed to 9% of nonadopted children. Brodzinsky, Radice, Huffman, & Merkler (1987) also reported 36% of adoptees displayed at least one clinically significant T score on the Child Behavior Checklist versus only 14% of non-adoptees. This suggests that mothers of adopted children viewed them as exhibiting significantly more problematic behaviors, more often, across a wide range of problematic behaviors when compared to mothers of nonadopted children.

Question 2: Does the self-appraisal of adopted children become more negative and do they exhibit more problematic behaviors as they become older?

*Hypotheses for Question 2:*

*A) Older adopted children will have more negative scores on the Self-Appraisal Scale than younger adopted children.*

*B) Older adopted children will have higher Child Behavior Checklist Total T scores than younger adopted children.*

The results did not support the hypotheses, as there was no significant age grouping effect for either Self-Appraisal Scale scores or the Child Behavior Checklist Total T scores. The results for the Self-Appraisal Scale indicate that as early as age 6 adopted children compare themselves less positively to other children, and this low self-appraisal continues through early adolescence. This is particularly interesting, given that all these adopted children were told of their adopted status in a nurturing and loving environment where their adopted status was presented to them as being very special, and research by Brodzinsky (1981, 1984, 1986) and Singer (1982) that found 6-7 year old adopted children view adoption as very positive. These results may be explained by the fact that by the age of 6 or 7 adopted children are entering school and being exposed to a wider social world that emphasizes their adoption status in a much less positive way than the adoptive family (Brodzinsky et al., 1984; Burrow et al., 2004; Juffer, 2006; Singer et al., 1982). This exposure increase their sensitivity to the inherent differences of being adopted (Smith and Brodzinsky, 1994) and may explain their negative self-appraisal at such an early age.

Results on the Child Behavior Checklist contradict the clinical literature on heightened identity conflicts of adolescents and subsequent adjustment disorders (Brodzinsky, 1987, Lifton, 1979, Sorosky, Baran, & Pannor, 1979) and findings by Fergusson, Lynskey, & Horwood, (1995), Lindholm and Touliatos (1980), and Verhulst and Versluis (1994) who reported an increase in adjustment problems among adoptees from kindergarten to eighth grade. It should be noted that these studies included children and adolescents referred for in-patient and out-patient mental health treatment. The results did

support findings by Bohman and Sigvardsson (1990), Borders, Black, & Pasley (1998), Brodzinsky, Radice, Huffman, & Merkler (1987), Grotevant et al., (2006), Haugaard, 1998; Miller, Fan, Christensen, Grovant, & van Dulmen (2000), Smith and Brodzinsky, 1994 that showed while adopted children had significantly higher incidence of maladaptive behaviors when compared to nonadopted children, there was no significant increase in maladaptive behaviors for older adopted children. In addition, Goldberg and Wolkind (1992) conducted a longitudinal study of adopted girls over a 15-year period and concluded that there was no evidence for a rise in behavioral disturbance rates in 15-year old female adoptees who had been followed longitudinally, and no evidence to suggest that problems with adopted children are inevitably likely to occur during adolescence.

Question 3: Is there a relationship between adopted children's self-appraisal and their behavior?

*Hypothesis for Question 3:*

*A) There will be a negative relationship between adopted children's Self-Appraisal scores and Child Behavior Checklist Total T scores.*

The results provided support for the hypothesis that adopted children's low self-appraisal ratings would be related to increased behavior problems. This finding is consistent with results of the study by Smith and Brodzinsky (1994), which showed a significant relationship between 6 to 17 year old adopted children's belief about adoption and their manner of coping. Children with a negative attribution towards adoption had significantly more problematic behaviors and less effective coping strategies for dealing with adoption related stress. Several other studies support the congruence between adopted children's self-appraisal and mother's perception of their behavior. Brodzinsky et al., (1984), Cohen,



Coyne, & Duvall, (1993), Howard et al., (2004), and Verhulst et al., (1990) conducted studies that showed parents rated their adopted children significantly higher in behavior problems and lower in social competence.

### *Limitations*

The findings of this study revealed significant differences between adopted and nonadopted children for behavior problems and self-appraisal. Further, the relationship between problem behavior and low self-appraisal was supported. The extent to which these differences are of clinical concern requires further investigation. In previous research on behaviors of adopted children, differences which were often caused by a few extreme or severe cases often resulted in interpretations suggesting a special set of clinical problems that are particular to adopted children (Brand & Brinich, 1999, Kirschner & Nagel, 1988). Adoptive parents have also been found to be more sensitive to their adopted children's behavior problems and rate them as more severe, raising the question of parent bias and issues of adoption stigma and "goodness of fit" (Brodzinsky, 1987; Haugaard, 1998; Jerome, 1993; Wierzbicki, 1993). Warren (1992) has reported that adoptive parents are prone to seeing their adopted child as being at risk for behavior problems and identify even minimal problems as warranting treatment. Also, the more problems an adopted child exhibited, the more likely the parents were to associate those difficulties with the child's adopted status (Hollenstein et al., 2003; Kay & Warren, 1988).

Failure to find age effects on adopted children's self-appraisal and behavior problems may be the result of the limited age range of participants or the limited range of possible responses on the Self-Appraisal Scale. Lack of adequate sensitivity on the Self-Appraisal

Scale may have resulted in failure to capture real differences in children's self-appraisal over time.

Due to small sample size age groupings were used, perhaps masking significant scores that were age specific and limiting the power of the statistical techniques to detect any differences over time. Also due to sample size, no gender analyses were conducted. Other studies (Brodzinsky et al., 1987; Burrow et al., 2004; Feigelman & Finley, 2004; Fergusson et al., 1995; Goldberg & Wolkind, 1992; Sharma et al., 1996; Simmel, et al., 2001; Stams et al., 2000) have shown gender specific adjustment problems that may not be evident or found significant when the combined gender data is analyzed.

Findings in this study must be qualified by a recognition of the limitations of the data. The findings are generalizable only to infants placed for domestic adoption with same race Caucasian families. Additionally, although adopted and nonadopted participants were recruited in different ways, both groups were comprised of volunteers. Without clear information regarding the refusal rate, it is impossible to gauge the impact of self-selection bias. Also, both the adopted and nonadopted participants were primarily recruited from one source (Children's Home Society, PTO) in a limited geographical area, producing a homogenous sample which increases the possibility that the unique demographics of these participants may have influenced the results in this study. It is of particular interest that none of the nonadopted children had clinically significant Total T scores, when it would be expected that in a random sample of the population approximately 8-11% of children would score in the significant range. This may limit the generalizability of the findings.

## *Conclusions*

The present study provides evidence of an elevated risk of behavior problems and negative self-appraisal for adopted children 6-13 years of age. This negative self-appraisal appears to be linked to behavioral adjustment, supporting past research that indicates a relationship between beliefs and behavior (Ajzen & Fishbein, 1977). It may be that problems adjusting to one's adoptive status, particularly during childhood and early adolescence, is closely tied to a less positive view of self that was exhibited by these children. The adoption beliefs of others, especially peers and significant adults, may be important in the adopted child's adjustment, thereby indicating a clear need for adoptive families and practitioners to educate society regarding adoption so as to lessen the stigma attached to this unique family status.

Although this study did not find that behavior problems increase with age for the older adopted children, several studies have shown a significant increase in behavioral maladjustment in adolescence (Sharma et al., 1996; Verhulst et al., 1990; Verhulst & Versluis, 1994). These studies indicate that adopted children's behavior problems may not be transitory. It seems imperative that adoptive families be supported over several years so that their many strengths can be utilized (Dance & Rushton, 2005; Juffer et al., 2004). In order for clinicians to support adoptive families, they should keep in mind that being adopted is a reality children need to come to terms with, and integrating that reality occurs in clear developmental stages and with a variety of coping strategies, with varying degrees of success (Brodzinsky 1987; Brodzinsky et al., 1986; Brodzinsky et al., 1998; Burrow et al., 2004; Smith & Brodzinsky, 1994; Warren, 1992).

Those involved in working with children should be knowledgeable about adoption practice and policies in order to be better prepared to assist adopted children and their families throughout the adoptive life cycle. Clinicians need to acknowledge that adoptees have the potential of experiencing more problems than nonadoptees, and that adoption policy and practices should provide families more long-term support. For example, adoptive parents could be more fully informed about how to tell their children about their adoptive status, and how important it is to re-tell over different developmental stages. Parents should also be educated on how their adopted children integrate this knowledge over time and the most successful coping strategies in dealing with their unique status (Brodzinsky, 2006; Brodzinsky et al., 1984; Brodzinsky et al., 1998; Miller et al., 2000; Priel et al., 2000).

While the findings in this study are based on a relatively homogenous sample of traditionally adopted children, it must be noted that the face of adoption is changing. Adoption is increasingly likely to involve older children or children with physical disabilities and emotional problems, some of whom have previously been kept in foster care or institutions. Interracial and intercountry adoption is similarly on the rise and involves issues of increased bias and loss of cultural identity. As these types of non-traditional adoptions continue to increase, previous research may not be generalizable thereby necessitating ongoing research on adoptees' development and adjustment.

Given the diversity of adoption today, two areas for future research are suggested: One has to do with the impact of pre-placement experiences on the behavioral adjustment of adopted children. Many children adopted beyond infancy have experienced abuse or neglect from previous caretakers and have had many disruptions in care. As a result, attachment difficulties may leave these children vulnerable to emotional and behavioral problems (Groze

& Rozenthal, 1993; Ijzendoorn & Juffer, 2006; Nickman et al., 2005; Rushton & Dance, 2006). With recent changes in adoption practices, including the increase in “special needs” adoptions, it becomes increasingly important to understand the impact of pre-placement experiences on adoption adjustment. Future research that examines pre-placement experiences as well as placement type may help us to better understand the complex relationship between changes in family placement and behavior problems.

Another target for further study is the small group of adopted children who have very high behavior problem scale scores. Since these are the children who frequently are seen in the mental health system for treatment, it is crucial that we gain a better understanding of the factors that make these children vulnerable to emotional and behavioral problems. It is likely that a variety of factors contribute to the emotional and behavioral difficulties seen in these children; such factors might include (1) genetic predisposition to emotional and behavioral problems, (2) prenatal substance abuse by birth mother or lack of prenatal care, (3) pre-adoption experiences such as neglect, abuse, and multiple placements.

Overall, there is clearly a need for further research to examine the process by which adoptees’ problems develop in order to determine the prognosis for adult adjustment, since dealing with adoption is a life-long process (Brodzinsky et al., 1992; Goldberg & Wolkind, 1992). In order to offer a richer, more complete understanding of adoption it is important to consider the gains of adoption and not just the aspects of liability and loss. There is a small body of research that examines the potential assets of adoption and identifies particular sources of strength that may be the product of the adoption process, that does not focus only on its challenges (Leon, 2002). There is evidence regarding the successes of adoptive children and their families (Borders et al., 1998; Feigelman, 2001) although this more

positive perspective is slow to reach practitioners. There is a need for educated professionals who can provide a balanced perspective on adopted children and their parents. Although adoption status should not be ignored, it also need not be overemphasized, and should not be viewed as an automatic deficit. Professionals should consider the unique developmental tasks adoptive families face as normal events, which are typically handled well. Although difficulties may be associated with adoption, they are not specific to adopted children. It would be an overstatement to suggest that adoption per se leads to emotional and behavioral problems in adopted children, and is worth repeating that the majority of adoptees are adjusting reasonably well to their family status. Given the findings in this study, while 35% of the adopted children had T scores in the Borderline and Clinical range, 65% had scores in the normal range, indicating that the majority of adopted children behave much like their nonadopted peers.

Although this study found a greater prevalence of maladaptive behavior and lower self-appraisal among adopted children compared with nonadopted children, the majority of adoptees' behavior was well within the normal range of functioning. While acknowledging that adoption is associated with increased risk for a variety of behavioral, emotional, and academic problems, it undoubtedly is a better solution and offers better outcomes than the impermanency of foster care or the uncertainty and anxiety of living with birth parents who are ambivalent about raising their children (Bohman & Sigvardsson, 1982; Juffer, 2006). Adoption therefore remains a valuable and important social response to the complicated challenge of supporting the developmental well-being of children.

## REFERENCES

- Achenbach, T.M. (1991). *Manual for the Child Behavior Checklist/4-18 and 1991 Profiles*. Burlington VT: University of Vermont Department of Psychiatry.
- Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, *84*, 888, 918.
- Band, E. V., & Weisz, J. R. (1988). How to feel better when it feels bad: Children's perspective on coping with everyday stress. *Developmental Psychology*, *4*, 247-253.
- Baran, A., & Pannor, R. (1993). Perspectives on open adoption. *The Future of Children*, *3*, 119-125.
- Baran, A., & Pannor, R. (1990). Open adoption. In D.M. Brodzinsky & M. D. Schechter (Eds.), *The Psychology of Adoption*. New York: Oxford University Press.
- Benet, M.K. (1976). *The Politics of Adoption*. New York: Free Press.
- Bird, G., Peterson, R., & Miller, S. (2002). Factors associated with distress among support-seeking adoptive parents. *Family Relations*, *51*, 215-221.
- Blum, H.P. (1983). Adoptive parents: Genetic conflict and generational continuity. *Psychoanalytic Study of the Child*, *38*, 141-163.
- Bohman, M. (1970). *Adopted Children and Their Families: A Follow-up Study of Adopted Children, Their Background Environment, and Adjustment*. Stockholm: Proprius.
- Bohman, M., & Sigvardsson, S. (1990). Outcomes in adoption: Lessons from longitudinal studies. In D. M. Brodzinsky & M. D. Schechter (Eds.), *The Psychology of Adoption* (pp. 93-106). New York: Oxford University Press.
- Borders, D., Black, L., & Pasley, B. (1998). Are adopted children and their parents at greater risk for negative outcomes? *Family Relations*, *47*, 140, 148.
- Bowlby, J. (1951). *Maternal Care and Mental Health*. (Monograph Series 2) Geneva: World Health Organization.
- Bowlby, J. (1969). *Attachment and Loss: Vol 1*, New York: Basic Books.
- Bowlby, J. (1973). *Attachment and Loss: Vol 2*, New York: Basic Books.
- Bowlby, J. (1980). *Attachment and Loss: Vol 3*, New York: Basic Books.

- Bowlby, J., Ainsworth, M.D.S., Boston, M., & Rosenbluth, D. (1956). The effects of mother-child separation: A follow-up study. *British Journal of Medical Psychology*, *49*, 211-247.
- Brand, A., & Brinich, P. (1999). Behavior problems and mental health contacts in adopted, foster, and nonadopted children. *Journal of Child Psychology and Psychiatry*, *40*, 1221-1229.
- Brinich, P. M. (1980). Some potential effects of adoption on self and object representations. *Psychoanalytic Study of the Child*, *35*, 107-133.
- Brinich, P. M., & Brinich, E. B. (1982). Adoption and Adaption. *Journal of Nervous and Mental Disease*, *170*, 489-493.
- Brodzinsky, D. M. (1984). New perspectives on adoption revelation. *Adoption and Fostering*, *8*, 27-32.
- Brodzinsky, D. M. (1987). Adjustment to adoption: A psychosocial perspective. *Clinical Psychology Review*, *7*, 25-47.
- Brodzinsky, D. M. (2006). Family structural openness and communication openness as predictors in the adjustment of adopted children. *Adoption Quarterly*, *9*, 1-18.
- Brodzinsky, D. M., Braff, A. M., & Singer, L. M. (1980). *Adoption revelation: Acognitive developmental perspective*. Paper presented at the conference on Piagetian Theory and the Helping Professions, University of Southern California, Los Angeles.
- Brodzinsky, D. M., & Huffman, L. (1988). Transition to adoptive parenthood. *Marriage and Family Review*, *12*, 267-286.
- Brodzinsky, D.M., Pappas, C., Singer, L.M., & Braff, A.M. (1981). Children's conception of adoption: A preliminary investigation. *Journal of Pediatric Psychology*, *6*, 177-189.
- Brodzinsky, D. M., Radice, C., Huffman, L., & Merkler, K. (1987). Prevalence of clinically significant symptomatology in a nonclinical sample of adopted and nonadopted children. *Journal of Clinical Child Psychology*, *16*, 250-256.
- Brodzinsky, D. M., & Schechter, D. E. (1990). *The Psychology of Adoption*. New York: Oxford University Press.
- Brodzinsky, D. M., Schechter, D. E., Braff, A. M., & Singer, L. M. (1984). Psychological and academic adjustment in adopted children. *Journal of Consulting and Clinical Psychology*, *52*, 582-590.
- Brodzinsky, D. M., Schechter, D. E., & Brodzinsky, A. B. (1986). Children's knowledge of adoption: Developmental changes and implications for adjustment. In Ashmore & D.



- Brodzinsky (Eds.), *Thinking About the Family: Views of Parents and Children*. Hillsdale, NJ: Erlbaum.
- Brodzinsky, D. M., Schechter, M. D., & Martinez Henig, R. (1992). *Being Adopted: The Lifelong Search for Self*. New York: Doubleday.
- Brodzinsky, D. M., Singer, L. M., & Braff, A. M. (1984). Children's understanding of adoption. *Child Development*, 55, 869-878.
- Brodzinsky, D. M., Smith, D. W., & Brodzinsky, A. B. (1998). *Children's Adjustment to Adoption: Developmental and Clinical Issues* (vol. 38) Thousand Oaks, CA: Sage
- Brown, A., Bransford, J., Ferrara, R., & Campione, J. (1983). Learning, remembering and understanding. In P. Mussen (Ed.), *Handbook of Child Psychology: Vol 3. Cognitive Development*. New York: Wiley.
- Brown, G. W., & Harris, T. (1978). *Social Origins of Depression: A Study of Psychiatric Disorder in Women*. London: Tavistock.
- Burrow, A., Tubman, J., & Finley, G. (2004). Adolescent adjustment in a nationally collected sample: Identifying group differences by adoption status, adoption subtype, developmental stage and gender. *Journal of Adolescence*, 27, 267-282.
- Cadoret, R. J. (1978). Evidence for genetic inheritance of primary affective disorder in adoptees. *American Journal of Psychiatry*, 135, 463-466.
- Cadoret, R. J. (1990). Biological perspectives of adoptee adjustment. In D. M. Brodzinsky & M. D. Schechter (Eds.), *The Psychology of Adoption* (pp. 25-41). New York: Oxford University Press.
- Cantwell, D. (1978). Genetics of hyperactivity. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 16, 261-264.
- Carp, E. W. (2002). Adoption, blood kinship, stigma, and the adoption reform movement: A historical perspective. *Law and Society Review*, 36, 433, 461.
- Carroll, J. (1968). *The acceptance or rejection of differences between adoptive and biological parenthood by adoptive applicants as related to various indices of adjustment/maladjustment*. Published doctoral dissertation, Temple University, Philadelphia.
- Cole, E. S., & Donley, K. S. (1990). History, values, and placement policy issues in adoption. In D.M. Brodzinsky & M.D. Schechter (Eds.), *The Psychology of Adoption*. New York: Oxford University Press.

- Clothier, F. (1939). Some aspects of the problem of adoption. *American Journal of Orthopsychiatry*, 9, 598-549.
- Clothier, F. (1943). The psychology of the adopted child. *Mental Hygiene*, 27, 222-230.
- Cohen, N., Coyne, J., & Duvall, J. (1993). Adopted and biological children in the clinic: Family, parental and child characteristics. *Journal of Child Psychology and Psychiatry*, 34, 545-562.
- Cole, E. (1985). Adoption: History, policy, and program. In J. Laird & A. Hartman (Eds.), *A Handbook of Child Welfare*. New York: Free Press.
- Costello, C. G. (1982). Loss as a source of stress in psychopathology. In R. Neufeld (Ed.), *Psychological Stress and Psychopathology*. New York: McGraw-Hill.
- Curry, S., & Russ, A. (1985). Identifying coping strategies in children. *Journal of Clinical Psychology*, 14, 61-69.
- Dalby, J. T., Fox, S. L., & Haslam, R. H. (1982). Adoption and foster care rates in pediatric disorders. *Developmental and Behavioral Pediatrics*, 3, 61-64.
- Dance, C., & Rushton, A. (2005). Predictors of outcome for unrelated adoptive placements made during middle childhood. *Child and Family Social Work*, 10, 269-280.
- DeLongis, A., Coyne, J. C., Dakof, G., Folkman, S., & Lazarus, R. S. (1982). Relationship of daily hassles, uplifts, and major life events to health status. *Health Psychology*, 1, 119-136.
- Deutsch, D. K., Swanson, J. M., Bruell, J. H., Cantwell, D. P., Weinberg, F., & Baren, M. (1982). Overrepresentation of adoptees in children with attention deficit disorder. *Behavior Genetics*, 12, 231-238.
- Dunning, R. W. (1962). A note on adoption among the Southampton Island Eskimos. *Man*, 53, 163-168.
- Easson, W. (1973). Special sexual problems of the adopted adolescent. *Medical Aspects of Human Sexuality*, 1, 92-105.
- Everett, R., & Schechter, M. (1971). A comparative study of prenatal anxiety in the unwed mother. *Child Psychiatry and Human Development*, 2, 84-91.
- Fahlberg, V. (1979). *Attachment and Separation*. Lansing: Michigan Department of Social Services.
- Feigelman, W. (2001). Comparing adolescents in diverging family structures: Investigating whether adoptees are more prone to problems than their nonadopted peers. *Adoption*

- Quarterly*, 5, 5-37.
- Feigelman, W., & Finley, G. (2004). Youth problems among adoptees living in one-parent homes: A comparison with others from one-parent biological families. *American Journal of Orthopsychiatry*, 74, 305-315.
- Fergusson, D. N., Lynskey, M., & Horwood, L. J. (1995). The adolescent outcomes of adoption: A 16-year longitudinal study. *Journal of Child Psychology and Psychiatry*, 36, 597-615.
- Formanek, R., & Gurian, A. (1981). *Charting Intellectual Development, A Practical Guide to Piagetian Tasks*. Springfield, Ill: Charles C. Thomas Publisher.
- Freeark, C., Rosenberg, E., Bornstein, J., Linkevich, M., Lohnes, K., & Jozefowicz, D. (2005). Gender differences and dynamics shaping the adoption lifecycle. *American Journal of Orthopsychiatry*, 71, 86-101.
- Fullerton, C. S., Goodrich, W., & Berman, L. B. (1986). Adoption predicts psychiatric treatment resistances in hospitalized adolescents. *Journal of the American Academy of Child Psychiatry*, 25, 542-551.
- Garnezy, N., & Rutter, M. (1983). *Stress, Coping, and Development in Children*. New York: McGraw-Hill.
- Gelman, R., & Baillargeon, R. (1983). A review of some Piagetian concepts. In P. Mussen (Ed.), *Handbook of Child Psychology: Vol. 3: Cognitive Development*. New York: Wiley.
- Goldberg, D., & Wolkind, S. N. (1992). Patterns of psychiatric disorder in adopted girls. *Journal of Child Psychology and Psychiatry*, 33, 935-940.
- Grotevant, H., van Dulmen, M., Dunbar, N., Nelson, J., Christensen, M., Fan, X., & Miller, B. (2006). Antisocial behavior of adoptees and nonadoptees: Prediction from early history and adolescent relationships. *Journal of Research on Adolescence*, 16, 105-131.
- Groze, V., & Rosenthal, J. (1993). Attachment theory and the adoption of children with special needs. *Social Work Research and Abstracts*, 29, 5-13.
- Haugaard, J. J. (1998). Is adoption a risk factor for the development of adjustment problems? *Clinical Psychology Review*, 18, 47-69.
- Hollenstein, T., Leve, L., Scaramella, L., Milfort, R., & Neiderhiser, J. (2003). Openness in adoption, knowledge of birthparent information, and adoptive family adjustment. *Adoption Quarterly*, 7, 43-52.

- Hoopes, J. L. (1982). *Prediction in Child Development: A Longitudinal Study of Adoptive Families*. New York: Child Welfare League of America.
- Horn, J. M., Green, M., Carney, R., & Erickson, M. (1975). Bias against genetic hypotheses in adoption studies. *Archives of General Psychiatry*, *32*, 1365, 1367.
- Howard, J., Smith, S., & Ryan, S. (2004). A comparative study of child welfare adoptions with other types of adopted children and birth children. *Adoption Quarterly*, *7*, 1-30.
- Ijzendoorn, M., & Juffer, F. (2006). Adoption as intervention. Meta-analytic evidence for massive catch-up and plasticity in physical, socio-emotional, and cognitive development. *Journal of Child Psychology and Psychiatry*, *47*, 1228-1245.
- Ijzendoorn, M., Juffer, F., & Peolhuis, C. (2005). Adoption and cognitive development: A meta-analytic comparison of adopted and nonadopted children's IQ and school performance. *Psychological Bulletin*, *131*, 301, 316.
- Ingersoll, B. D. (1997). Psychiatric disorders among adopted children: A review and commentary. *Adoption Quarterly*, *1*, 57-73.
- Jerome, L. (1993). A comparison of the demography, clinical profile, and treatment of adopted and nonadopted children at a children's mental health center. *Canadian Journal of Psychiatry*, *38*, 290-294.
- Jewett, C. L. (1978). *Adopting the Older Child*. Harvard, MA: Harvard Common Press.
- Juffer, F. (2006). Children's awareness of adoption and their problem behavior in families with 7-year-old adopted children. *Adoption Quarterly*, *9*, 1-22.
- Juffer, F., Bakersmans, M., & Ijzendoorn, M. (2005). The importance of parenting in the development of disorganized attachment: Evidence from a preventive intervention study in adoptive families. *Journal of Child and Adolescent Psychiatry*, *46*, 263-274.
- Juffer, F., Stams, G., & Ijzendor, M. (2004). Adopted children's problem behavior is significantly related to their ego resiliency, ego control, and sociometric status. *Journal of Child Psychology and Psychiatry*, *45*, 697-706.
- Kadushin, A., (1980). *Child Welfare Services* (3rd ed.). New York: Macmillan.
- Kaye, K., & Warren, S. (1988). Discourse about adoption in adoptive families. *Journal of Family Psychology*, *1*, 406-433.
- Kenny, T., Baldwin, R., & Mackie, J. B. (1967). Incidence of minimal brain injury in adopted children. *Child Welfare*, *46*, 24-29.
- Kirk, H. D. (1964). *Shared Fate*. New York: Free Press.

- Kirk, H.D. (1981). *Adoptive Kinship--A Modern Institution is in Need of Reform*. Toronto: Butterworth.
- Kirschner, D., & Nagel, L. S. (1988). Antisocial behavior in adoptees. *Child and Adolescent Social Work Journal*, 5, 300-314.
- Kogan, N. (1983). Stylistic variation in childhood and adolescence; Creativity, metaphor, and cognitive style. In P. Mussen (Ed.), *Handbook of Child Psychology: Vol 3. Cognitive Development*. New York: Wiley.
- Kopp, C. B. (1983). Risk factors in development. In P. Mussen (Ed.), *Handbook of Child Psychology: Vol. 2. Infancy and Developmental Psychology*. New York: Wiley.
- Lazarus, R. S., DeLongis, A., Folkman, S., & Gruen, R. (1985). Stress and adaptational outcomes: The problem of confounded measures. *American Psychologist*, 40, 770-779.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, Appraisal, and Coping*. New York: Springer.
- Leon, I. (2002). Adoption losses: Naturally occurring or socially constructed? *Child Development*, 73, 652-663.
- Lifshitz, M., Baum, R., Balgur, I., & Cohen, C. (1975). The impact of the social milieu upon the nature of adoptees' emotional difficulties. *Journal of Marriage and the Family*, 37, 221-228.
- Lifton, B. J. (1979). *Lost and Found: The Adoption Experience*, New York: Dial Press.
- Lindholm, B. W., & Touliatos, J. (1980). Psychological adjustment of adopted and nonadopted children. *Psychological Reports*, 46, 307-310.
- Loehlin, L. C., Willerman, L., & Horn, J. M. (1982). Personality resemblances between unwed mothers and their adopted-away offspring. *Journal of Personality and Social Psychology*, 42, 1089-1099.
- Losbough, B. (1965). Relationship of E. E. G., neurological and psychological findings in adopted children. *Journal of E. E. G. Technology*, 5, 1-4.
- Maccoby, E., & Martin, J. (1983). Socialization in the context of the family: Parent-child interaction. In P. Mussen (Ed.), *Handbook of Child Psychology*. Vol. 4: Socialization, Personality, and Social Development. New York: Wiley.
- Main, M., Kaplan, N., & Cassidy, J. (1985). Security in infancy, childhood, and adulthood. *Journal of Orthopsychiatry*, 50, 66-104.

- Mech, E. V. (1973). Adoption: A policy perspective. In B. Caldwell & H. N. Ricciuti (Eds.), *Review of Child Development Research* (Vol. 3). Chicago: University of Chicago Press.
- Menlove, F. L. (1965). Aggressive symptoms in emotionally disturbed adopted children. *Child Development*, *36*, 519-532.
- Miller, B. C., Fan, X., Christensen, M., Grotevant, H., & van Dulmen, M. (2000). Comparison of adopted and nonadopted adolescents in a large, nationally representative sample. *Child Development*, *71*, 1458-1473.
- Miller, B. C., Fan, X., Christensen, M., Grotevant, H., Coyl, D., & van Dulmen, M. (2000). Adopted adolescents' over-representation in mental health counseling: Adoptees' problem or parents' lower threshold for referral? *Journal of the American Academy of Child and Adolescent Psychiatry*, *39*, 1504-1519.
- Nickman, S. L. (1985). Losses in adoption: The need for dialogue. *Psychoanalytic Study of the Child*, *40*, 365-398.
- Nickman, S., Rosenfeld, A., Fine, P., McIntyre, J., Pillowsky, D., Howe, R., Derdeyn, A., Gonzales, M., Forsythe, L., & Sveda, S. (2005). Children in adoptive families: Overview and update. *Journal of the American Academy of Child and Adolescent Psychiatry*, *44*, 987-995.
- Offord, D. R., Aponte, J. F., & Cross, L. A. (1969). Presenting symptomatology of adopted children. *Archives of General Psychiatry*, *20*, 110-116.
- Pederson, D. R., & Gilby, R. L. (1986). Children's concepts of the family. In R. Ashmore & D. Brodzinsky (Eds.), *Thinking About the Family: Views of Parents and Children*. Hillsdale, NJ: Erlbaum.
- Piaget, J. (1964). *Judgement and Reasoning in the Child*. Paterson, NJ: Littlefield, Adams.
- Presser, S. B. (1972). The historical background of the American law of adoption. *Journal of Family Law*, *11*, 443-516.
- Priel, B., Melamed, S., Besser, A., & Kantor, B. (2000). Adjustment among adopted children: The role of maternal self-reflectiveness. *Family Relations*, *49*, 389-396.
- Reid, J. (1963). Principles, values, and assumptions underlying adoption practice. In E. Smith (Ed.), *Readings in Adoption*. New York: Child Welfare League of America.
- Reitz, M., & Watson, K. (1992). *Adoption and the Family System*. New York: Guilford.
- Rogeness, G., Hoppe, S., Macedo, C., Fishcer, C., & Harris, W. (1988). Psychopathology in

- hospitalized adopted children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 27, 628-631.
- Rushton, A., & Dance, C. (2006). The adoption of children from public care: A prospective study of outcome in adolescence. *Journal of the American Academy of Child and Adolescent Psychiatry*, 45, 877-883.
- Sants, H. J. (1964). Genealogical bewilderment in children with substitute parents. *British Journal of Medical Psychology*, 37, 133-141.
- Schechter, M. D. (1960). Observations on adopted children. *Archives of General Psychiatry*, 3, 21-32.
- Schechter, M. D. (1970). About adoptive parents. In E. J. Anthony & T. Benedek (Eds.), *Parenthood: Its Psychology and Psychopathology*. Boston: Little, Brown.
- Schechter, M., Carlson, P. V., Simmons, J. Q., & Work, H. H. (1964). Emotional problems in the adoptee. *Archives of General Psychiatry*, 10, 37-46.
- Seglow, J., Pringle, M. L. K., & Wedge, P. (1972). *Growing up Adopted*. Windsor, England: National Foundation for Educational Research in England and Wales.
- Senior, N., & Himaldi, E. (1985). Emotionally disturbed, adopted, inpatient adolescents. *Child Psychiatry and Human Development*, 15, 189-197.
- Shantz, C. U. (1983). Social cognition. In P. Mussen (Ed.), *Handbook of Child Psychology: Vol. 3. Cognitive Development*. New York: Wiley.
- Sharma, A. R., McGue, M. K., & Benson, P. L. (1996). The emotional and behavioral adjustment of U. S. adopted adolescents: Part I. An overview. *Children and Youth Services Review*, 18, 83-100.
- Sharma, A. R., McGue, M. K., & Benson, P. L. (1998). The psychological adjustment of United States adopted adolescents and their nonadopted siblings. *Child Development*, 69, 791-802.
- Sibler, K., & Martinez Dorner, P. (1990). *Children of Open Adoption*. San Antonio, TX: Corona Publishing.
- Silver, L. B. (1970). Frequency of adoption in children with the neurological learning disability syndrome. *Journal of Learning Disabilities*, 3, 11-14.
- Simon, N. M., & Senturia, A. G. (1966). Adoption and psychiatric illness. *American Journal of Psychiatry*, 122, 858-867.
- Simmel, C., Brooks, D., Barth, R., & Hinshaw, S. (2001). Externalizing symptomatology

- among adoptive youth: Prevalence and prediction. *Journal of Abnormal Child Psychology*, 29, 57-79.
- Singer, L. M., Brodzinsky, D. M., & Braff, A. M. (1982). Children's belief about adoption: A developmental study. *Journal of Applied Developmental Psychology*, 3, 285-294.
- Singer, L. M., Brodzinsky, D. M., Ramsay, D. Steir, M., & Waters, E. (1985). Mother-infant attachment in adoptive families. *Child Development*, 56, 1543-1551.
- Slap, G., Goodman, E., & Huang, B. (2001). Adoption as a risk factor. *Pediatrics*, 108, 1-8.
- Smit, E. M. (2002). Adopted children: Core issues and unique challenges. *Journal of Child and Adolescent Psychiatric Nursing*, 15, 143-150.
- Smith, D. W., & Brodzinsky, D. M. (1994). Stress and coping in adopted children: A developmental study. *Journal of Clinical Child Psychology*, 23, 91-99.
- Smith, D. W., & Brodzinsky, D. M. (2002). Coping with birthparent loss in adopted children. *Journal of Child Psychology and Psychiatry*, 43, 213-223.
- Sokoloff, B.Z. (1993). Antecedents of American adoption. *The Future of Children*, 3, 17-25.
- Sorosky, A. D., Baran, A., & Pannor, R. (1975). Identity conflicts in adoptees. *American Journal of Orthopsychiatry*, 45, 18-27.
- Sorosky, A. D., Baran, A., & Pannor, R. (1978). *The Adoption Triangle*. New York: Doubleday.
- Speece, M., & Brent, S. (1984). Children's understanding of death: A review of three components of a death concept. *Child and Adolescent Social Work Journal*, 8, 571-587.
- Stams, J. M., Juffer, F., Rispens, J., & Hoksbergen, A. C. (2000). The development and adjustment of 7-year-old children adopted in infancy. *Journal of Child Psychology and Psychiatry*, 41, 1025-1037.
- Steinhauer, P. D. (1983). Issues of attachment and separation: Foster care and adoption. In P. Steinhauer & Q. Rae-Grant (Eds.), *Psychological Problems of the Child in the Family* (2nd ed.). New York: Basic Books.
- Stolley, K. (1993). Statistics of adoption in the U.S. *The Future of Children*, 3, 26-42.
- Taichert, L. C., & Harvin, D. D. (1975). Adoption and children with learning and behavior problems. *Western Journal of Medicine*, 122, 464-470.



- Ternay, M., Wilborn, R., & Day, H. D. (1985). Perceived child-parent relationships and child adjustment in families with both adopted and natural children. *Journal of Genetic Psychology, 146*, 261-272.
- Verhulst, F. C., & Versluis-den Beiman, H. J. (1994). Developmental course of problem behaviors in adolescent adoptees. *Journal of the American Academy of Child and Adolescent Psychiatry, 34*, 151-159.
- Verhulst, F. C., Althaus, M., & Versluis-den Bieman, H. J. (1992). Damaging backgrounds: Later adjustment of adoptees. *Journal of the American Academy of Child and Adolescent Psychiatry, 31*, 518-524.
- Wallerstein, J. S. (1983). Children of divorce: Stress and developmental tasks. In N. Garnezy & M. Rutter (Eds.), *Stress, Coping, and Development in Children*. New York: McGraw-Hill.
- Wallerstein, J., & Kelly, J. (1980). Children and divorce. *Social Work, 24*, 468-475.
- Warren, S. (1992). Lower threshold for referral for psychiatric treatment for adopted adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry, 31*, 512-517.
- Wegar, K. (2000). Adoption, family ideology, and social stigma: Bias in community attitudes, adoption research, and practice. *Family Relations, 49*, 363-370.
- Wegar, K. (1995). Adoption and mental health: A theoretical critique of the psychopathological model. *American Journal of Orthopsychiatry, 65*, 540-551.
- Wertlieb, D., Weifel, C., & Feldstein, M. (1987). Measuring children's coping. *American Journal of Orthopsychiatry, 57*, 548-560.
- Weider, H., & Herbert, L. (1977). On being told of adoption. *Psychoanalytical Quarterly, 46*, 1-22.
- Wierzbicki, M. (1993). Psychological adjustment of adoptees: A meta-analysis. *Journal of Clinical Child Psychology, 22*, 447-454.
- Wilson, S. (2004). A current review of adoption research: Exploring individual differences in adjustment. *Children and Youth Services Review, 26*, 687, 696.
- Wood, J., Cowan, P., & Baker, B. (2002). Behavior problems and peer rejection in preschool boys and girls. *Journal of Genetic Psychology, 163*, 72-88.
- Yarrow, L. J., Goodwin, M. S., Manheimer, H., & Milowe, I. D. (1973). Infancy experiences and cognitive and personality development at 10 years. In L.J. Stone, H. T. Smith, and L. B. Murphy (Eds.), *The Competent Infant*. New York: Basic Books.

Zill, N. (1985, April). *Behavior and Learning Problems Among Adopted Children: Findings from a U.S. National Survey of Child Health*. Paper presented at the meeting of the Society for Research in Child Development, Toronto.