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Adoption and Trauma: Risks, Recovery, and the Lived Experience of Adoption

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Abstract

Background: Although a very heterogeneous group, adopted persons may present developmental and mental health problems of varying severity. Pre-placement adversity and trauma have often been linked to these problems. It has been also suggested that adoption itself is a psychological trauma, predisposing the individual to emotional difficulties.

Objectives: This article examines the links between early adversity, trauma, and adoption. We begin by defining trauma and then describe the way in which pre-placement adversity can undermine neurobehavioral and interpersonal functioning, increasing the risk for long-term psychological difficulties. Next, we examine children's recovery when placed in a stable adoptive home. Finally, we explore adoption as a lived experience, highlighting contextual and developmental factors that facilitate the person's positive or negative attributions about being adopted, leading to varying patterns of emotional adjustment.

Conclusions: Although pre-placement adversity increases adopted individuals' risk for maladjustment, the human brain and behavior are malleable, and placement in a nurturing adoptive home often facilitates recovery from early adversity, with significant heterogeneity in the extent of recovery within and across domains of functioning. While there is no evidence that early adoption is a trauma for the individual, ongoing negative life circumstances, attachment difficulties, and developmentally-mediated attributions about adoption can undermine the person's self-esteem, identity, relationships, and sense of well-being. Conclusions and suggestions for future research are offered.

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There is a long history linking adoption, adversity, and trauma, one that recently has generated considerable debate, as noted in the introduction to the special issue of the journal. Modern adoption emerged as a child welfare practice in most Western countries in the first half of the 20th century as a societal intervention for the plight of children whose parents were unable to provide proper care for them. Whether placed at birth or later in childhood, the intended goal of adoption was to facilitate a permanent and nurturing family in which children's physical, emotional, relational, and educational needs could be met. In many cases, adoption was also viewed as a chance for children to heal from adverse, and, at times traumatic, experiences encountered prior to placement. This theme – adoption as a child-focused intervention – has been at the heart of child welfare policy and practice ever since (Palacios et al., 2019).

A quite different perspective regarding adoption, however, emerged in the middle of the 20th century and has continued to the present. Researchers reported that adopted individuals are overrepresented in mental health settings and manifest higher levels of adjustment problems compared to their non-adopted peers (Askeland, et al., 2017; Holmgren, et al., 2020; Juffer & van IJzendoorn, 2005). In the past, most researchers attributed greater developmental and mental health risks for adopted individuals primarily to the vulnerabilities and adversities they experienced prior to adoption (e.g., genetics, prenatal complications, neglect, abuse, multiple foster care placements, orphanage life). More recently, the role of post-adoption family-based experiences and other contextual factors, as well as reports on the lived experiences of being adopted by adolescents and adults, have added to our understanding of the connection between adoption and psychological adjustment, including, for some, the experience of adoption as an emotional trauma.

Thus, two general themes have linked adoption, adversity, and trauma historically, one viewing adoption as a societal intervention for children in need of permanency, as well as a means by which some children are provided an opportunity to recover from previous life adversities, and a second viewing adoption as a developmental risk factor in the life of the person. In this article we explore both themes to clarify the nature of the connections between adoption, adversity, and trauma. We begin by examining how pre-placement adversity, especially when it occurs early in life when the brain is very plastic and strongly shaped by experience, can impact subsequent attachment, mental health, and neurobehavioral development, compromising executive functions, self-regulation, memory, reward sensitivity, and stress regulation, among other areas of functioning (Gunnar & Reid, 2019). In turn, these competencies, when diminished, can make it challenging for some adoptees to negotiate the lived experiences of their adoption. Next, we explore adoption as a “protective factor”, with an emphasis on its effectiveness in meeting the needs of vulnerable children, especially those who are recovering from the consequences of previous life adversity. In the final section, we address adoption as a “lived experience”,

examining contextual and developmental factors that impact psychological well-being and the integration of adoption into the developing self-system.

Before continuing, we must acknowledge that there is no singular “adoption experience.” Children enter their new families through different pathways, are adopted at different ages, have different pre-placement experiences, and grow up in different types of families. In short, being adopted is a heterogeneous life experience, with some children more likely than others to encounter early adversity and trauma, and/or have more difficulty integrating their adoption into a healthy and secure sense of self.

Defining Trauma

Given the theme of the special issue – adoption and trauma – it is important that we define what we mean by trauma. Although trauma has been defined in many ways in the past, the one offered by the Substance Abuse and Mental Health Services Administration (SAMHSA; 2014) is particularly useful because it integrates previously identified components of the trauma experience and has been widely accepted by trauma-informed researchers and practitioners in the field of mental health. Specifically, SAMHSA suggests that trauma involves “an event, series of events, or set of circumstances that is experienced by an individual as physically or psychologically harmful or life threatening and that has lasting adverse effects on the individual’s functioning and mental, physical, social, emotional or spiritual well-being (p. 7)”. In addition, it is recognized that in some cases adverse effects may occur immediately after experiencing a specific event, whereas in other cases there may be delayed onset. In relation to adoption, we also emphasize the long-term impact of life adversities on the developing person, especially those involving interpersonal traumas and dysregulations to the emotional, relational, and self-systems. The latter perspective is at the core of Developmental Trauma Disorder (DTD) which has been proposed, but not yet accepted, for incorporation in the Diagnostic and Statistical Manual by the National Child Traumatic Stress DSM-V Taskforce (see van der Kolk & d’Andrea, 2010). These types of adverse life experiences are often cumulative and all too common in the developing years of adopted children, especially those placed after experiences of maltreatment and/or institutionalization, with long-term negative consequences for their well-being. Moreover, the adverse impact of being adopted often has delayed onset, linked to the person’s changing attributions about adoption-related experiences that occur with development. To highlight the latter point, in the third section of this article we explore how adoption as a lived experience is interpreted by individuals as they mature cognitively and socially and seek to integrate this personal and family experience into their identity, self-esteem, and relationships.

Pre-Adoption Adversities and Post-Adoption Functioning

To address questions about how prior experiences impact post-adoption functioning, we can turn to studies of two groups of children: children adopted from institutional settings and children adopted from foster care after initial neglectful or abusive experiences. The first group of children typically experience marked deprivation prior to adoption and in recent decades have been studied extensively, focusing not only on cognitive and socioemotional

development, but also using the tools of neuroscience to understand how their experiences have shaped them from the molecular to the neural level (see review, Gunnar & Reid, 2019). Because foster care is one of the pathways to adoption, the studies of children in foster care or from other circumstances involving neglect and abuse, are also relevant. Here there are important research and intervention programs that have examined how pre-adoption experiences (e.g., maltreatment, number of placements) affect post-fostering and/or post-adoption social, cognitive, and physiological functioning. Children adopted from institutions are believed to have primarily experienced neglect and deprivation. Children removed from their families and placed in foster care prior to adoption frequently have experienced a combination of neglect and threatening life circumstances (see Sheridan and McLaughlin, 2014).

Neglect and abuse are violations of species-typical experiences that support healthy development. Humans are born very motorically immature, with limited visual acuity and brains that have not yet formed the circuits to integrate vision, touch, sound, and motor activity. Human interaction is what provides the context for the developing brain, with responsive care allowing the infant to experience the type of response-contingent stimulation upon which many of the developing neural circuits depend (Tottenham, 2020). When this responsive stimulation is absent, degraded or replaced by harsh, threatening responses from caregivers for a sufficient duration of early development, functioning is adversely impacted. Because skills beget skills, alterations in the early architecture of the developing brain affect the skills which the child brings to the table, influencing how the world is perceived, processed, and responded to, which in turn affects later developing circuits and skills (Nelson et al., 2020).

Effects Related to Age at Adoption

Whether adoption is a disruption in a child's life depends, in part, on the child's age and experiences at the time of adoption. As mammals, we have evolved to respond well to the marked disruption of being born. Likewise, in the first few months of life there is little evidence that a shift in caregiving arrangements produces detectable adverse effects later in development. Perhaps the best evidence of this comes from studies of children adopted from conditions of deprivation in institutions in the first few months of life. Across a large range of measures, cognitive, social, emotional and physiological, no differences were noted between those children and children born and raised in their birth families (see review, Gunnar & Reid, 2019). This is not to say that these children never have to come to terms with what it means to be adopted, as we discuss later, just that these later issues are not due to trauma at the time of adoption when it happens in the first few months of life.

Language is one area that is strongly affected by age-at-adoption as revealed most clearly in the Bucharest Early Intervention Project (BEIP). Children randomly assigned to removal from institutional care and placement in families during the period of rapid language learning (e.g., by 15 months) scored similarly to community controls on school-age language outcomes at age 8 years (Windsor et al, 2012). Children placed by 15 months scored higher on measures such as nonword repetition and word identification than did children placed later. Children placed beyond 25 months continued to show deficits in

school-age language outcomes. Thus, placement in a language rich environment during sensitive periods for language development appears to be predictive of whether children will show impairments in language skills or not.

Age at adoption is also critical for children adopted after they are old enough to organize their security seeking behavior around one or a few people, with the likelihood of successfully organizing a secure attachment in the first months post-placement decreasing with age from 5 to 28 months in children removed from their families and placed in foster care (Stovall & Dozier, 2000). Actually, the question of whether the child can form a secure relationship with adoptive parents takes two forms in relation to pre-adoption experiences. If children have had many different caregivers within any given day or week, as in institutional care, it is likely that they have never fully formed an attachment relationship with anyone (see Zeanah et al., 2005). Children who have not had a chance to form an attachment during the first years of life, do rapidly form discriminating attachments once given an opportunity and these attachments appear most often to be secure (Carlson et al., 2014). On the other hand, for children who have been abused by their primary caregivers preadoption and/or have experienced the forming and losing of many attachment relationships, as sometimes is the case in foster care, attachment disordered behavior can be an issue (Zeanah et al., 2004). Indeed, outcomes for children adopted from foster care in England largely reflected pre-adoption adversity, with the exception that distress at separation from foster parents was also predictive of problematic outcomes, arguing for the importance of planning for this transition (Neil et al., 2020).

A secure attachment relationship supports the development of many aspects of healthy child functioning, including executive function (EF) skills (Bernier et al., 2010). EF skills support the top-down regulation of other brain functions (Zelazo, 2020). These neurocognitive skills include inhibitory control (the capacity to inhibit habitual responses to achieve goals), working memory (the number of ideas one can hold in mind at one time), executive attention (effortful regulation of attentional focus) and cognitive flexibility (the capacity to shift from one set of rules to another as circumstances change). EF is profoundly affected by early deprivation in institutional care (van IJzendoorn et al., 2020), as well as trauma and abuse at the hands of parents or guardians (van der Bij et al., 2020; Wretham & Woolgar, 2017). These skills contribute to a wide range of competencies, including inhibiting inappropriate responses to strangers (Bruce et al., 2009), attention regulation (Crosbie et al., 2008), sharing, turn-taking (Meyer et al., 2015), emotional self-regulation, and many aspects of academic performance. Deficits in EF skills emerge early in life and are sustained for many years after removal to enriching, supportive environments (van IJzendoorn et al., 2020). Furthermore, they are transdiagnostic indicators of risks for psychopathology (Wade et al., 2020), forming a critical step in the developmental cascade that in some cases leads from neurocognitive deficits immediately post-adoption (reflecting preadoption conditions) to problems with peers and other relationships, to academic problems, and to failures to achieve the developmental tasks of adolescence and emerging adulthood, resulting in affective disorders (Golm et al., 2020).

Brain Structure and Function

The impact of early adversity on the development of EF and other cognitive functions, raises questions of how brain structure and function are impacted. Several prospective studies of early adversity have reported marked reductions in the volume of gray matter, where neural cell bodies and their dendrites are located, a part of the central nervous system involved in sensory perception and motoric responses, speech, memory, impulse control, and emotions. Both smaller total brain volumes (Mackes et al., 2020) and, controlling for total volume, reductions in particular regions (e.g., frontal cortex and hippocampus) have been reported in studies of previously institutionalized children (Hodel et al., 2015). In the BEIP study, widespread reductions in cortical thickness were noted that were not mitigated by removal from institutional care and placement in families (McLaughlin et al., 2014). Recently, the BEIP group (Stamoulis et al., 2017) reported that early deprivation not only reduced brain volume and cortical thickness, but also altered brain wiring, with children randomly assigned to removal from institutional care showing improvements in wiring compared to those remaining in institutions, although they were still different from children who were never in deprived institutional care. It is notable that some of the effects on brain development do not manifest early in life, but take time to develop, emerging by adolescence many years after adoption. Thus, in one study involving children adopted from institutions mainly in their first three years of life, reductions in hippocampal and amygdala volumes studied across development did not emerge until adolescence and were predicted by dysregulation of stress physiology evidenced many years earlier (van Tiegheem et al., 2021).

While early deprivation has profound effects on brain growth, abuse and threat appear to profoundly impact the brain regions, most notably the amygdala, that process and trigger defensive responses to threat. Childhood maltreatment is associated not only with increased vigilance and reactivity to threat stimuli, but also a more reactive amygdala to threat faces and connectivity of the amygdala to other brain regions (as reviewed in Demers et al., 2018). It should be noted, though, that in the Demers et al. (2018) study, adults who were functioning adaptively did not show these neurological effects. This raises a challenging issue in research on the long-term effects of childhood adversity. Specifically, prospective studies with objective measures tend to be more highly correlated with alterations in biological functioning, sometimes termed the biological embedding of childhood adversity, while retrospective, self-reports of early adversity by adults are more strongly associated with psychopathology (Gehred et al., 2021). Thus, many of the studies of childhood maltreatment which retrospectively use self-report questionnaires likely under-estimate the neurobiological impacts of early adversity.

In sum, preadoption adversity has significant long-term impacts on post-adoption functioning, dependent on the age at adoption, the degree and nature of the adversity, and individual factors (e.g., genetics, as will be covered in the next section). Nonetheless, adoption can be a turning point in children's lives. Adverse care conditions are replaced by family environments assessed by social service agencies as suitable in terms of parental motivation, attitudes, skills, and emotional stability, although some of these families are unable to meet their children's needs as they had hope to (Palacios, 2020; Smith, 2014). Post-adoption recovery is real, and it is to this point that we turn next.

Post-adoption recovery after early adverse experiences

There is tremendous heterogeneity in outcomes for children removed from adversity and adopted into families. In this section we address issues of recovery and factors in the child and in the adoption environment that enhance positive outcomes for children who have experienced early adversity and trauma.

Age at Adoption and Recovery

Age at adoption is one of the more critical factors in predicting recovery. Assuming that much of the importance of an early age at adoption is due to the role of early experiences in shaping patterns of relationships and brain architecture, this raises the question of sensitive periods. The current evidence is that there is not likely to be one critical or sensitive period that determines when recovery of function in general is impossible. This is partly because even within a given domain of functioning (e.g., language development) there are different sensitive periods for the different skills (e.g., phonology, semantics, etc.) that contribute to overall competency in that domain. Thus, across and within domains there are cascades of different sensitive periods under the influence of multiple experiential and biological factors (Nelson & Gabard-Durnam, 2020). Moreover, later developing skills can sometimes compensate for earlier developing skills that were not optimally established, although in other instances, poorly developed earlier skills can impair the development of later developing skills (Nelson & Gabard-Durnam, 2020). From this perspective, the timing of competence development in different domains is malleable and residual plasticity still enables functional modifications for children adopted beyond infancy. Notably, depending on the age and the degree of atypical input prior to adoption, recovery of some functions and/or reversal of some adaptations may require specialized interventions, as discussed below (Koss, et al., 2020; Yarger et al., 2021).

Differential Plasticity

Another critical issue in recovery is termed differential plasticity (Palacios et al., 2014). Even when a particular domain of functioning appears to be strongly affected by early adversity, it is important to note that some facets of those domains may be more plastic and responsive to improved conditions than others. Indeed, the process of recovery seems asynchronous, with some domains recovering more rapidly and more completely than others.

Recovery of physical growth is a good example of differential plasticity. One way the developing body protects itself under adverse conditions is to shift metabolic resources from physical growth to allow an energy reserve to ward off threats such as infections or periodic lack of nutrition. This is likely one reason that activation of the stress hormone system acts on the growth hormone system to slow linear growth (Gunnar & Reid, 2019). Children exposed to significant adversity early in life show a reduction of linear growth, which when it is extreme (i.e., child is below the 5th percentile in height-for-age) is termed growth stunting. Once removed from adversity and placed in supportive families, growth rebounds and soon is within ranges typical for the child's age (Gunnar & Reid, 2019; van IJzendoorn et al., 2020). The exception to this is head size, which lags behind, but is in normal ranges

by early adolescence (Johnson et al., 2018). While much of the work on psychosocial deprivation-related growth failure has been done in children adopted from institutional care, the phenomenon was originally described for children living in families who, upon removal to more supportive conditions, would begin growing without any medical treatment (Green, et al., 1984). Importantly, rapid catch-up growth in previously institutionalized children challenges the children's iron stores, which are often compromised under conditions of early deprived care (see for review, Gunnar & Reid, 2019). Depleted iron stores during periods of rapid catch-up growth can adversely impact recovery of cognitive functions, including IQ and executive functions, and thus should be monitored.

Intelligence is another domain that shows differential plasticity. IQ is significantly impaired by early deprivation and inadequate cognitive stimulation. However, meta-analytical evidence shows that adopted children's IQs rebound and are typically within normal ranges (average, 104) within a year or so of adoption and may be as much as 20 points higher than the IQ of peers left behind in institutional care (van IJzendoorn et al., 2005). While IQ is typically highly predictive of school performance, despite adoption resulting in normal IQs, school performance of adoptees often lags, with more adopted children developing learning difficulties (van IJzendoorn, et al., 2005), probably in connection with increased behavioral and emotional problems (Brown, et al., 2017) and some EF deficits, as discussed below.

One reason for normal IQs not translating into good school performance is likely continuing problems in EF. Yet EF is another domain that shows marked differential plasticity. While attention regulation, working memory and inhibitory control exhibit deficits long after adoption, other aspects of EF are either spared or rebound. In a study by Pollak et al. (2010), with children placed in their adoptive families after institutional care at an average age of 23 months and studied at age 9, no deficits were observed in rule acquisition and planning, despite deficits in other EF skills. Similar results were obtained in a study of post-institutionalized Russian children adopted into Spanish families (Peñarrubia et al., 2020) and in the BEIP study follow-up when children were 12 years (Bick et al., 2018). Language is also another domain that exhibits differential plasticity. Norwegian research has reported that while internationally adopted children acquire contextually based day-to-day language very rapidly and efficiently if adopted early, they experience more difficulties with the abstract language typical of the school context (Dalen, 2005).

Differential plasticity is also seen with regards to attachment. Even though, as described earlier, children appear to be capable of forming secure attachment relationships even when adopted at later ages when behavioral indices are used, attachment representations change more slowly. For example, in one study of children adopted into Spanish families from Russian institutions, representations of self and others were still negatively affected even after attachment behaviors had normalized (Román et al., 2012). Raby and Dozier (2019) have indicated that changes towards more positive representations of self and others can continue into adulthood.

Finally, and critically, aspects of brain development show highly significant differential plasticity. As noted earlier, total gray matter volume is profoundly affected by early deprivation and does not appear to improve following removal from deprivation and

placement in supportive families (e.g., Hodel et al., 2015; McLaughlin et al., 2014). The volume of white matter, which consists of the sheaths of myelin (fatty substance) that wraps nerve bundles to speed transmission of signals, does recover (Sheridan et al., 2012), as do indices of white matter track integrity (Bick et al., 2015). Thus, recovery for the brain may largely consist of being better able to effectively use the neural circuits that survive early adverse care.

Plasticity Genes

There is tremendous heterogeneity in outcomes even when children have experienced similar adversities, ages at adoption, and quality of post-adoption care. Some of this heterogeneity undoubtedly reflects genetic differences among individuals. While one view of genetic differences is that some individuals are genetically more vulnerable (i.e., diathesis-stress theory), a newer argument is that there are some genes that increase sensitivity to the environment, resulting in greater impairment under adverse developmental conditions, but greater positive functioning (or recovery) when developmental conditions are supportive (differential susceptibility) (Ellis et al., 2011). A variety of genes in the dopamine (e.g., DRD4 7 repeat allele) and serotonin (e.g., serotonin transporter short allele) families and in neurotrophic factors (e.g., BDNF Val66Met polymorphism) have been proposed to be plasticity genes. All of these have been associated with impairments under adverse condition. What is now beginning to be studied is whether they also increase responsiveness to improved conditions, such as those produced by intervention and/or adoption. Examining 22 studies of randomized interventions, strong evidence was obtained for genes previously associated with externalizing behavior and depression to predict increased responsiveness to psychosocial interventions, often those targeting improved parenting (Bakermans-Kranenburg & van IJzendoorn, 2015). In one study of previously-institutionalized children examining the BDNF Val66Met polymorphism, children with one or more copies of the minor allele (e.g., MET) showed more sensitivity to age-at-adoption, performing better than other children when adopted early and worse than other children when adopted later (Gunnar et al., 2012). While such findings may help explain why some individuals recover more than others, there is also evidence in some cases that presumably more plasticity-inducing genotypes are associated with more long-term problems for children adopted from highly adverse circumstances (Kumsta et al., 2010). The differential susceptibility hypothesis reminds us of the importance of considering individual differences in biological and experiential characteristics, in developmental plasticity and in how adoption is understood and internalized by the person.

Context of Recovery

The post-adoption environment plays a critical role in recovery. Positive qualities of the family environment, such as stability, a parenting approach encouraging age-expected behaviors, parental secure state of mind regarding attachment, and warm and sensitive parent-child relationships, predict better developmental outcomes across domains (Helder, Mulder & Gunnow, 2016; Paine et al., 2020; Raby & Dozier, 2019). The benefits of a positive family environment go beyond the initial years, as reported by Gunnar et al. (2019) showing that pubertal development reopens a window of opportunity for the stress system

response to be recalibrated in the presence of significant improvements in the supportiveness of the environment relative to that in infancy.

Because aspects of parenting are frequently discussed as essential to recovery, the evidence for their causal role is important to consider. There is considerable evidence that sensitive parenting plays a causal role in recovery. Thus, randomized trials designed to increase sensitive parenting in adoptive parents have been shown to increase secure attachment relationships (Juffer et al., 2005; Zajac et al., 2020) and reduce behavior problems (Yarger et al., 2021). In the BEIP study, stability in the caregiving environments following removal from institutional care and randomization to families supported recovery in many domains, including height and weight (Johnson et al., 2018) and brain electrical activity (Debnath et al., 2021). There is also increasing evidence that the parent's attachment state of mind plays a role in whether children can develop a secure relationship with the adoptive parent, especially those adopted later in development who are at greater risk of disorganized attachment (van den Dries et al., 2009). In a longitudinal study in Italy, children adopted between 4 and 8 years were followed into adolescence (Pace et al., 2019). Adoptive mothers with more secure states of mind had children who showed more secure attachment by adolescence. It is noteworthy that adoptive parents are more likely than low-risk community parents to have secure states of mind, which may explain why so many adopted children are able to form secure relationships with their adoptive parents (Raby & Dozier, 2019).

Parenting children who have previously experienced maltreatment and who bring significant behavioral, neurological, and emotional problems to the adoptive family likely requires more than just good-enough parenting (Gunnar, 2010). Several programs have been developed to provide more 24/7 support for adoptive and/or foster parents, and specific help in understanding child problems and accessing therapeutic resources (e.g., Fisher & Stoolmiller, 2008; McCullough & Mathura, 2019). One study suggests that not only does such support help parents be less stressed by the challenging behavior of their children, but it helps with establishing or maintaining biological rhythms in previously maltreated children (Fisher & Stoolmiller, 2008). Unfortunately, all too many families who adopt previously abused and neglected children do not have access to strong and individualized support from agencies and mental health professionals, especially those with adoption clinical competence (Atkinson, 2020; Brodzinsky, 2013).

While it is true that the problems that children bring with them do not magically disappear at adoption (Gunnar & Pollak, 2007) and that the recovery process is non-linear and at times incomplete, evidence reviewed in this section indicates that adoption promotes a very significant opportunity for improvements that change the life of adopted persons with adverse early experiences. But since a thorough understanding of adversity and its impact needs to incorporate the way persons perceive and interpret the events affecting them (Smith & Pollak, 2020), we now turn our attention to the lived experience of adoption.

Adoption as a Lived Experience

How is adoption understood and experienced by people? There is no simple answer to this question because, as noted previously, there is no singular "adoption experience." Children

enter their new families through different pathways, are adopted at different ages, and have different pre-placement experiences. Moreover, their adoption experience is impacted by the many contexts in which they live and by their developmental stage. In this section, we discuss the role of ecology and development in the meaning people attribute to their adoption experience and why, for some, being adopted is a destabilizing and, at times, traumatic experience, whereas for most it is not.

The Ecology of Adoption

Based on Bronfenbrenner's (2005) ecological systems model of development, Palacios (2009) emphasized the importance of considering the context or ecology within which people develop to better understand the impact that being adopted has on them. This model goes beyond a focus on the characteristics of the individual person (e.g., age, gender, race) or the specific characteristics of their adoption (e.g., age at adoptive placement, type of adoption) – which characterized much of adoption research in the past – to stress consideration of the processes and dynamic interactions between the person and others, and the many contexts in their lives. The model suggests that the likelihood of adoption being internalized as a positive personal and family experience or as a destabilizing and perhaps traumatic one is tied to the interaction of multiple contextual factors, including the society or culture within which the adoption occurred (*macrosystem*), the proximal community and professional interventions that impact the adopted person indirectly through its influence on parents and other caregivers (*exosystem*), the environments in which the adoptee spends most of their time such as family, peer group, and school (*microsystem*), as well as the dynamic interplay among these microsystems (*mesosystem*) and the changes in the environments and the person over time (*chronosystem*). Indeed, the impact of each of these contextual factors is mediated by developmental factors, especially children's cognitive and social-cognitive development, through which they attribute meaning to their adoption experience. Although space does not allow us to detail the impact of different types of contextual factors on the way adoption is understood and internalized by the individual, we highlight some of the more important ones.

How adoption is understood and internalized by the individual is impacted by the societal and cultural contexts in which the person is raised. Scholars of anthropology, sociology, and history have emphasized that acceptance and practice of adoption has varied over time and from culture to culture (Bowie, 2004; Leinaweaver, 2018) and is the product of social construction (Miall, 1996). Positive societal and cultural support for adoption as a way of building or expanding a family makes it more likely that adopted individuals will experience affirmative messages about their lived experience. In contrast, support for certain types of adoption can be compromised by the makeup of a society or by the attitudes and actions of certain segments of a society. For example, in societies that are relatively racially or ethnically homogenous, individuals who are adopted transracially may have more difficulty meeting and interacting with others who share their racial-ethnic and cultural origins, and may experience discrimination, bias, and more subtle microaggressions related to their race-ethnicity or adoptive status (Baden, 2016; Riley-Behringer et al., 2014), which can undermine psychological adjustment and the development of a well-integrated and healthy sense of self.

Adoption has changed dramatically from the early 20th century when it was first formalized as a professional child welfare practice to the present (Marr et al., 2020). Increasing transparency regarding children's origins and pre-placement experiences, support for contact between adoptive and birth families, acknowledgement of the additional responsibilities of adoptive parenthood and the inherent differences between adoptive and biological family status, and the greater availability of post-adoption supports have greatly benefited adopted individuals and their families, making it easier for them to understand and cope with adoption-related challenges. These types of changes make it clear that the lived experience of being adopted is inherently tied to changes in the macrosystem and the exosystem. As just one example, consider the impact of an earlier adoption practice that counseled parents not to share adoption information with children. A recent study by Baden et al. (2019) points out how disruptive, disturbing, and potentially traumatic it can be for people to find out about their adoptive family status at older ages and/or in unsupportive ways.

There are also numerous factors that indirectly impact the lived experience of being adopted through their influence on key people with whom children spend much of their time, such as parents, extended family, teachers, and health professionals. Family life probably has the most immediate and powerful impact on how individuals internalize their adoption experience. Adopted children's development and emotional well-being, like their non-adopted peers, is inextricably tied to the quality of parenting they receive. But raising an adopted child is typically more complex and challenging than raising a birth child (Pinderhughes & Brodzinsky, 2019). As a result, pre-placement preparation of parents by child welfare and/or mental health professionals is critical for placement stability and the well-being of all family members, as is the availability and utilization of post-adoption supports (Hartinger-Saunders, et al., 2013; Merritt & Festinger, 2013). However, the extent and quality of parent preparation and the availability of post-adoption supports vary considerably from place to place. When adoptive parents are not properly prepared by adoption professionals to understand and meet adoption-related challenges, including how adoption loss, early adversity, and trauma impact children, they will be less effective in creating a caregiving environment that fosters healthy internalization of adoption experiences by their children.

Research has also identified many family- and parent-related factors that impact adopted children's psychological adjustment, emotional well-being, and identity (see review, Pinderhughes & Brodzinsky, 2019), often contributing to whether their lived adoption experience is an affirming and supportive one or a disruptive, destabilizing and even traumatic one. For example, parents who display greater openness in adoption communication, who are sensitive in the way they share adoption information, and who are attentive to their children's points of view about adoption, generally foster healthier family dynamics and more positive adjustment in their children (Brodzinsky, 2005; Thomas & Scharp, 2020). This is especially true when they support a free exchange of ideas about adoption among family members and provide guidance to children in interpreting family of origin and adoption information, and support search interests (Reuter & Koerner, 2008). Adoptive parenting cognitions have also been shown to play a key role in children's emotional well-being (see review, Lo and Cashen, 2020). Parents who readily acknowledge the inherent differences in raising adopted children compared non-adopted children usually

are better prepared to support their children's curiosity about their origins and share adoption information in an open and empathic manner, which in turn is linked to more positive adjustment in adolescence (Lo and Grotevant, 2020). Finally, in transracial, transethnic and transcultural adoptive families, children's emotional well-being, self-esteem, and identity are directly tied to the ability of parents to provide effective racial-ethnic and cultural socialization experiences. Unfortunately, this is not always the case, with some parents adopting a "color blind" attitude and downplaying the importance of race, ethnicity, and culture in the child's and family's life. When this occurs, children's racial self-esteem and identity can be jeopardized, as can their ability to cope with racial and cultural bias, discrimination, and microaggressions (see review, Pinderhughes & Brodzinsky, 2019).

Contact with birth family, whether directly (Grotevant, 2020) or indirectly through social media and other forms of distance communication (Black, et al., 2016), both of which are becoming increasingly common, undoubtedly also impacts the meaning and lived experience of being adopted. Contact is a source of information about one's past and a means by which individuals come to understand the reasons for their adoption. It also facilitates more discussion about adoption within the adoptive family, fostering an easier integration of being adopted into one's identity (Von Korff & Grotevant, 2011). Yet the extent of contact with birth family appears less important than the person's satisfaction with the experience (Grotevant, et al., 2011). The latter finding suggests that not all individuals have the same need for contact and/or experience it in the same way. Furthermore, contact sometimes can pose a risk for the adopted individual, especially if it involves those who were the source of previous neglect or abuse, who provide unsupportive messages about adoption, or who are emotionally unstable (Neil & Howe, 2004).

In short, children's lived experiences of being adopted are continuously being influenced by the dynamic interplay within and between the various contexts that are part of their everyday lives. When the messages they receive are respectful, affirmative, and supportive, healthy internalization and integration of their adoptive identity usually occurs (Grotevant et al., 2017; Grotevant & Von Korff, 2011); on the other hand, when their adoption experiences and feelings are ignored or disrespected, and when there is a lack of support by key people in their lives for exploring the meaning of being adopted, it can lead to feelings of marginalization, diminishment, fragmentation of self, and emotional destabilization. And for some, it can also feel traumatic.

Developmental Issues

The experience of being adopted varies considerably from person to person, with most people adjusting well to their family status, but others having more difficulty doing so (ter Meulen, et al., 2019). Two important factors influencing adjustment are the way adopted individuals comprehend the meaning of being adopted and the appraisals they attribute to their relinquishment and current family status, which are a function of cognitive and social-cognitive development (Brodzinsky, 2011; Brodzinsky, et al., 1984) and coping strategies (Smith & Brodzinsky, 1994, 2002), as well as the contextual factors previously described. Adoption as a lived experience incorporates not only the person's current understanding and emotional attributions regarding their life, but also how they understand and integrate into

their sense of self all that has happened to them previously, both before their adoption and since their entrance into the family. To highlight some of our points, we offer the voices of adolescent and adult adopted individuals¹

Unlike some adoption clinicians (Verrier, 1993), we do not hold with the notion that separation of an infant from its birth mother constitutes a “primal wound” that is somehow encoded in the neural system in a way that predisposes the individual to “adoption trauma”. As noted previously, there is no evidence suggesting that adoptive placement in the first months of life constitutes a traumatic experience for the young infant, although separation of an older baby or child from their parents, after primary attachments are formed, would in most cases be experienced as emotionally disruptive, if not traumatic (Dozier & Rutter, 2016; Kobak et al., 2016). Children placed for adoption early in life will not understand the meaning and implications of what has happened to them for some time. Even when they are informed of their adoptive status – typically in the preschool years – and begin to learn their adoption story, they manifest little comprehension of what has happened to them (Brodzinsky, 2011; Brodzinsky et al., 1984) and do not yet have the experience to contextualize their family circumstances compared to others. In fact, Brodzinsky and his colleagues found that preschoolers often have quite positive views about being adopted and only begin to experience ambivalence and some level of distress when they become sensitized to adoption-related loss – typically in the elementary school years (Brodzinsky, et al., 1984). But even then, most adopted children experience relatively low levels of distress in relation to being adopted and to the loss of birthparents (Smith & Brodzinsky, 1994, 2002) and usually appraise their adoption experience positively (Reinoso, et al., 2013). However, with advancing age, accompanied by cognitive and social-cognitive growth, adopted youth become more aware of the complexities associated with their family status, especially as it is contextualized in relation to the family lives of others, which in turn often results in a more pervasive and profound sense of adoption-related loss (Brodzinsky, 2011). For example, recognizing that most people view adoption as “second best” compared to being born into a family, often fosters a sense of stigma for adoptees and a view of themselves as “lesser than.” In writing about this issue, French (2013) coined the term “birth privilege” to describe the hurtful and damaging societal views that prioritizes families formed through procreation, against which adopted individuals are constantly judged, by themselves and others. As Lisa [20-year-old, adopted at birth] said, *“I can’t help thinking that it would be better if I had been born into my family ... I just don’t feel the same way about family as I imagine my friends do ... I don’t feel as confident and secure as they are ... maybe it’s not about being adopted, but just I can’t help feeling that it is ... it’s just not as good as growing up with your real parents”*.

Differences from other family members in physical or racial features, temperament, intellectual capabilities, and/or personality traits based on non-shared genetics can also make it difficult for adopted individuals to feel as if they “fit it” or “belong” in the family, compromising their emotional security and identity. *“All of my life I felt different from my*

¹Quotes are derived from the first author’s research and scholarly writings (Brodzinsky et al., 1984; Brodzinsky, et al., 1992). All identifying and contextual information have been redacted to preserve the individuals’ privacy and confidentiality. Research was approved by the Institutional Review Board of Rutgers University.

parents and brothers, not just because I'm not White, but also because I'm just so different from them ... they're loud and I'm quiet ... they did well in school and I struggled ... although I know they love me and I love them, I've always felt as if I didn't belong ... and I don't know where I belong" [Kelli, 28-year-old adopted from Korea at the age of 2 years]. And for those placed at older ages, adoption-related loss is compounded by the disruption of previous attachments to biological family members, previous foster family members, friends, teachers, coaches, therapists, and other people who played a meaningful role in their lives.

Resolving adoption-related loss is complicated for several reasons (Brodzinsky, 2011). First, it is a rather unique form of loss – i.e., adoptees constitute a small percentage of the general population in all Western societies – which often accentuates the person's feelings of isolation and differentness. Second, it is an ambiguous loss (Boss, 1999), with birth family members most often physically absent even though psychologically present (Brodzinsky, 2014). How the loss is understood by the person can also complicate their ability to cope and their perception of themselves. If viewed as a voluntary placement, adopted individuals may question whether they had any value to the birth parents; if viewed as an involuntary removal by child welfare, they may question whether they come from individuals who have value. In either case, adoption loss can generate feelings of resentment, anger, shame, embarrassment, guilt, and/or diminished worth. And importantly, the failure of many people to understand, validate, and support the adopted person's feelings of loss often leads to what has been called "disenfranchised grief" (Doka, 2002), an experience that can undermine the emotional well-being of the grieving individual. "*When I tried to talk about my sadness about not knowing what happened to my family back in China, all I got was reassurances that my life here was undoubtedly better ... not just from my [adoptive] parents, but also my [adoptive] grandparents ... no one really seemed to understand that they [birth family] were constantly on my mind ... I worried about them ... were they still alive ... what was their lives like ... did they think about me ... were they sad about not having me in their lives ... when my [adoptive] grandfather died, we all grieved together and that felt good ... but no one understands my worry and grief about my birth family"* [Lisa, 31-year-old woman adopted from China at 2 years of age].

Although there is little empirical evidence suggesting that adoption *per se* is traumatic for most individuals, independent of adverse prenatal and pre-placement experiences, and problematic post-adoption family circumstances, this theme has been noted in clinical writings (Lifton, 1994; Verrier, 1993) and more recently in online articles, social media posts, blogs, and Facebook groups². Although perhaps reflecting the experiences and points of view of a small percentage of adopted individuals, it would be a mistake to dismiss what is being shared. There is much to be learned from these individuals in terms of understanding factors influencing variability in adoption adjustment. In our view, the experience of "adoption-as-trauma" represents ongoing negative appraisals of being adopted, as well as the importance of these appraisals for understanding one's current sense of

²See for example, <https://postinstitute.com/the-adopted-child-trauma-and-its-impact/>; https://www.huffpost.com/entry/adoption-related-trauma-a_b_1049205; <https://adoption.org/can-adopted-newborn-adoption-related-trauma>; Facebook Group "Adoption is Trauma."

self, identity, relationships, and general well-being. When being adopted is accompanied by contextual life factors that include messages of “birth privilege”, a lack of empathy, understanding and support from key figures in the person’s life, including lack of specialized therapeutic support when needed, as well as by microaggressions, barriers for exploring adoption issues, and with insecure internalized models of attachment, it is likely that adoption appraisals will be more negative and used as a lens through which to attribute meaning about self, others, relationships, and one’s place in the world. This view of adoption-as-trauma is consistent with current theory and research explaining individual differences in response to other life adversities and trauma. Specifically, the impact of traumatic events is believed to be mediated by the person’s appraisals of those events in terms of their level of perceived severity and centrality to their lives, as well as by the extent of current attachment anxiety (see Ogle, et al., 2016; Smith & Pollak, 2021). In other words, the more severe and central to the self a person views an experience, including being adopted, and the greater their attachment anxiety, the more likely the experience will be appraised as traumatic, which in turn increases the risk of psychological maladjustment.

In summary, as adopted individuals move through childhood, adolescence and into adulthood and become increasingly aware of the personal and societal implications of being adopted, there often occurs a deeply felt need to “make meaning” of their adoption experience. Unfortunately, there are too many circumstances in which adopted individuals do not get the emotional and practical support they need, which not only impacts adoption-related coping, but can also undermine attachment security (Feeney et al., 2007; Penny et al., 2007). For some, the adoption journey is met with disinterest, misunderstanding, resistance, disrespect, and even scorn, which can be emotionally destabilizing and even traumatic, leading to an insecure and incomplete sense of self and increased adjustment difficulties. But for those living in family and community contexts that provide empathy, respect, affirmation, and support, the quest for personal understanding and self-integration in relation to adoption progresses reasonably well, with most adults attributing positive feelings to their adoption experience and reporting generally positive life satisfaction (ter Meulen, et al. 2019).

Conclusions and Future Directions

Trauma is a common experience in the lives of adopted children and youth. For most, it occurs prior to adoptive placement and involves prenatal deficiencies and/or early life adversities such as neglect, abuse, multiple caregivers, and institutional rearing. These types of early adversities can have profound harmful effects on the developing brain and on interpersonal relationships, undermining multiple areas of functioning, with long-term negative developmental consequences. Adoptive placement, when practiced within a rights and ethics perspective, can be a “protective factor” for vulnerable children, offering them the possibility of developmental recovery and a better life than they would have had if forced to remain in less stimulating and nurturing environments. Early, stable, and nurturing adoptive placements, accompanied when needed by specialized trauma- and attachment-informed clinical interventions, are critical for supporting developmental recovery. But as we have noted, even when children are placed in well-resourced and nurturing families and receive specialized interventions, recovery is uneven across areas of functioning, depending on

age of adoptive placement and the extent of preadoption adversity. Some of the critical issues going forward are to better understand those factors that determine variability in resilience and recovery in children exposed to different types of early adversity, especially the post-adoption contextual and developmental factors that either support or undermine children's well-being. Furthermore, we need more information about the role of differing levels and types of contact between adoptive and birth families on the well-being of adopted individuals and their families, especially those adopted from domestic foster care and from abroad. In addition, more research is needed on the effectiveness of clinical interventions targeting the impact of early adversity and trauma on these vulnerable children. Another important area that warrants attention is how adoption as a lived experience impacts the adjustment of emerging adults, including their parenting process. Such research would be helpful in determining the long-term impact of adoption and its capacity to break intergenerational transmission of emotional difficulties.

It is also our view that adoption *per se* is not inherently a trauma for the individual, but at the same time there is no question that for some individuals the adoption experience is a difficult one, compromising their emotional security, self-esteem, identity, and relationships. Moreover, these difficulties often emerge without any evidence of pre-placement adversity or trauma. Understanding those factors that contribute to variability in the lived experience of being adopted, including how it is appraised and integrated into the self-system, is an important research goal, with significant implications for parent preparation and post-adoption support services, especially those involving therapeutic interventions for family members. Although too many mental health professionals do not adequately understand the complexities of adoptive family dynamics (Brodzinsky, 2013), there is a growing trend toward improving clinical training in this area (Atkinson, 2020; Riley & Singer, 2020), which ultimately will better serve the needs of adoptees and their families.

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