

Commentary on “Seven Institutionalized Children and Their Adaptation in Late Adulthood: The Children of Duplessis”

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In a world that encompasses vast populations uprooted and dispersed by war, disease, and disaster, children are routinely denied that most basic pillar of childhood, a parent. The resulting effects of childhood privation and trauma deserve concentrated, serious, and prolonged scientific inquiry. Institutionalized children have always represented the human fallout of economic, medical, and political catastrophes, their stories preserved in literature from Victorian England to contemporary accounts from Romania and Africa. Lest it seem a historical or distant problem, each local community tragedy of severe abuse or death in the American foster care system generates a brief media frenzy that seems to alternate with long periods of almost complete apathy and neglect.

This article is the latest in a series of papers on the children of Duplessis that collectively remind us of the urgent necessity of improving the quality of institutional care for our children. This mission will be facilitated by creating a recognized field of academic study focused on the institutionalized child that recognizes the distinct and complex ways that distinguish these victims of extreme and chronic distress from others who have suffered trauma and abuse. These case reports of the children of Duplessis are the most recent additions to a tradition of serendipitous,

qualitative studies of institutionalized children— first generation contributions that generate hypotheses and identify salient variables that provide the foundation for later quantitative research and the impetus for social policy reform, offering the promise of lasting and profound change in the lives of the tomorrow's youth.

By presenting detailed case reports of seven orphans who were raised in Quebec institutions from birth and were subsequently followed through their adulthood, the authors have captured the multifaceted consequences of early institutional deprivation and trauma expressed over a lifetime. The extent to which psychiatric problems arise as a result of early privation is a function of an amalgamation of factors, which together must lay the foundation for this field of inquiry—the interaction of the child's biological and psychological constitution with the social environment. Case reports may be the most compelling illustrations of the key variables that may determine the lifelong effects of early adversity, including genetic endowment, attachments, losses, and abuse. The question the authors pose, “How influential are the child's innate strengths, traumas, and other adverse experiences, and the adults who intervene during childhood as precursors to the chapters of late adulthood?” is pivotal in assessing

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interventions and strategies designed to minimize the negative consequences of early institutional life.

These case reports personalize findings presented in their two earlier papers. In this earlier research, they examined 81 adults, with a mean age of 59.2 years, who had been raised in orphanages in Quebec, Canada. The study subjects reported numerous early negative experiences, including “unfair rules and excessive punishment, physical abuse, sexual abuse, and serious illness.” Indeed, their cruel, inhuman and degrading treatment at the hands of authorities constituted nothing less than torture. Half of these adults reported having experienced limited attachments. The group was found to have “modest levels” of protective personal strengths that were stable into later adulthood. The authors concluded that the presence of childhood relationships and traumatic events, “predicted their counterparts in later adulthood moderately well.”¹ In another report, they found that this group of adults displayed a higher prevalence of psychiatric disturbance, though not autism, schizophrenia, or bipolar disorder, and they were assessed as having moderate difficulty in their overall social and occupational functioning, compared to matched population sample.² The adults who had possessed the fewest number of childhood strengths were found to be most vulnerable to persisting effects of early trauma, while an increased number of strengths correlated with less severe trauma effects. The relationship between childhood strengths and later adult functioning is vividly illustrated in these case descriptions, such as in the case of Mary, who, despite having suffered severe early trauma, had mature adult functioning, perhaps as a result of early positive attachments and a moderate number of personal strengths. The clinical vignettes vividly depict variations on a theme, the complex interplay of strengths, attachments, and traumas endured as a childhood of misery at the mercy of a government and church turned evil.

However, these are retrospective accounts that are inevitably less reliable than prospective data gathering. Anna Freud pio-

neered the technique of directly observing children’s behavior, both in the nursery school she operated in Vienna and in the Hampstead War Nursery she founded in England after fleeing the Nazis. The Hampstead War Nursery provided foster care for children displaced by World War II. Anna Freud believed in the primacy of maternal attachment and so insured the availability of consistent surrogate caregivers for the children and encouraged visits from the biological parents as often as possible.³ After the war, Freud founded another children’s orphanage, where she cared for child survivors of the concentration camps. From these experiences, she formulated a theory of child development as an epigenetic process comprised of an evolving set of interactions between a child’s innate psychological constitution and the external environmental stressors. Anna Freud viewed developmental lines as a reflection of the mother–child relationship, coursing from a relationship gratifying the child’s basic needs to one in which the child has psychologically internalized the stable mother object, a developmental landmark that served as a precursor to the child’s later formation of mature relationships with other people.

But what would be the consequence of a disruption in this developmental sequence, such that the early phase of fulfilling a child’s basic needs did not occur? Anna Freud’s formulation inspired a wave of psychoanalytic theorists interested in analyzing the physical and emotional sequela of abnormal attachments. Rene Spitz observed children who had formed initial attachments with their mothers and then suffered separation. These children were then physically cared for but were deprived of stable, ongoing relationships with a consistent caregiver. They were found to have significant impairments in physical and emotional maturation and were more susceptible to environmental stressors. He termed their psychological state “anaclitic depression” or, in a more specific context, “hospitalism.” Animal studies complemented the study of maternal separation and attachment. Harry Harlow segregated rhesus monkeys into different environments in which they were iso-

lated to various degrees. After separating monkeys from their mothers during their first weeks of life, they were given a choice of surrogate monkeys fashioned of wire or cloth. The young monkeys preferred the cloth monkeys to the wire versions, even when food was provided only with the latter. Harlow deduced from this experiment that infants not only need nutritional sustenance but tactile sustenance as well—which they could obtain from the comforting cloth monkeys. He also found that as a function of isolation, the monkeys exhibited symptoms such as self-mutilation, stereotyped behavior, fear, anxiety, timidity, and future difficulty nurturing others.⁴

John Bowlby embarked on a career—long examination of the concepts of attachment, separation, and loss that emphasized that healthy development required both physical care and attachment to the caregiver. Bowlby's theory of attachment was supported by his observation that infants who were separated from their mothers display anxiety, an inability to reduce distress, and a failure to thrive. His influential report to the World Health Organization in 1951 described the typical effects of early maternal separation—"... listless, quiet, unhappy and unresponsive ... the emotional tone is one of apprehension and sadness. The child withdraws himself from all that is around him ... activities are retarded ... lack of sleep is common and lack of appetite universal ... there is a sharp drop in general development."⁵ He also cited the transformation of one infant whose

"appearance was that of a pale, wrinkled old man. His breathing was so weak and superficial that it seemed as though he might stop breathing at any moment. When seen twenty-four hours after he had been home he was cooing and smiling. Though no change had been made in his diet he started to gain promptly and by the end of the first year his weight was well within the normal range."⁶

Bowlby emphasized the long-term effects of early privation, describing what he felt were emblematic characteristics of these chil-

dren—traits persisting years after the privation had receded into the past. These children are characterized by "superficial relationships, ... no capacity to care for people or to make true friends ... a curious lack of concern ... and an inaccessibility ... evasion, stealing, [and] lack of concentration at school." Most importantly, Bowlby believed that the primary legacy of early privation was the difficulty in forming meaningful and fortifying relationships. Institutional care led to poor attachment, since these substitute caretakers were not genuinely responsive to the children's emotional states or perceptive about their individual needs. According to Bowlby, an inadequate primary attachment presaged problematic and suboptimal development of the child.

In recent years, professional attention has been focused on possible biological consequences of early privation and abuse, such as disruptions in brain development, abnormalities in neuroendocrinological systems, and dysfunction of neuromodulators. Several studies have demonstrated that childhood abuse predicts later susceptibility to the onset of depression and anxiety disorders as an expression of biochemical dysregulation in brain functioning, and perhaps alterations in the structure of the brain itself. As a child develops, especially in the first few years of life, the brain undergoes rapid growth, utilizes more glucose than does the adult brain, and undergoes intense synaptogenesis.⁷ However, not all the synapses persist, and the neuronal connections that are not needed are pruned away; this vulnerable interval of synaptogenic flux reflects brain plasticity. During this critical period, environmental contributions may exert a profound effect on which synapses and neuronal circuits are preserved and which are eliminated, in effect, determining the future areas of brain activity and complexity. In addition to pre-natal development, early childhood is the time that the environment significantly shapes the developing brain.

Recent work has illustrated the effect of trauma during this early stage of life. For example, a comparison between depressed women with and without a history of childhood trauma revealed that the abused group

had on average an 18% smaller left hippocampal volume than the non-abused group. The hippocampal volumes in the non-abused depressed group of women were similar to those in a non-depressed control group.⁸ Smaller hippocampal volumes have also been shown to be associated with treatment-resistant depression. Therefore, it may be that structural hippocampal changes associated with early abuse predicts a poor response to treatment.⁹ Other studies have also found smaller hippocampal volumes in adult subjects with a history of early abuse but not in children with a history of abuse, leading researchers to theorize that the duration and severity of early trauma are determining factors in brain structural changes.^{10, 11}

One possible explanation for reduced hippocampal volumes is elevated secretion of corticotrophin-releasing factor and ACTH. In fact, women with PTSD and a history of sexual abuse have been found to have increased ACTH response to stressors and higher cortisol levels. Indeed, depressed women with a history of early abuse had increased heart rates, ACTH levels, and cortisol levels in response to stress, all possibly associated with increased CRF secretion.¹²

Additional biochemical compounds possibly affected by early privation were identified in a study that compared urine levels of oxytocin and vasopressin in two groups of children—those who had been reared in orphanages and those who were raised in families.¹³ A greater percentage of orphanage-raised children had low levels of both compounds. This finding is significant, as oxytocin and vasopressin are central nervous system hormones that have many important functions, including fostering attachment and social interactions, and regulating the hypothalamic-pituitary axis (HPA) and the autonomic nervous system.¹⁴ Lower levels of these neuropeptides could adversely affect children in a variety of ways—impairing their ability to self-regulate and self-soothe, to form nurturing relationships, and possibly to regulate their HPA and autonomic nervous system, all of which could contribute to the development

of psychiatric illness, such as anxiety and affective disorders.

Numerous studies have explored the relationship between early adverse experiences such as abuse or neglect and the activity of the HPA and cortisol-releasing system. Areas of the brain, including the amygdala (responsible for emotional encoding of memories and traumatic events) and the brainstem nuclei (loci of stress-associated neurotransmitter production and release) have high concentrations of neurons containing corticotrophin-releasing factor (CRF). Depressed patients appear to have higher concentrations of CRF in the cerebrospinal fluid. Animal studies have demonstrated that early stress or trauma can predispose dysregulation of the CRF system, which may reciprocally contribute to the genesis of depressive and anxiety states.¹⁵ In particular, primates who had suffered early separation from their mothers had increased levels of cortisol in response to social stressors and structural brain changes. They also were less able to cope with stressful situations.¹⁶ Structural brain changes and HPA and CRF system alterations in subjects with early trauma suggest a mechanism of gene environment interactions in the context of early trauma may produce an innate vulnerability for depression and anxiety.¹⁷

Valuable information about the consequences of institutional upbringing has been gleaned from observing Romanian orphans. Many of these children develop what is termed “indiscriminate behavior” that may persist long after institutional life has ended with placement in adoptive homes. This inappropriate, indiscriminate friendliness to strangers was found to exist even in the presence of a secure attachment to the adoptive parents. Researchers such as Chisholm and O'Connor noted that Romanian orphans exhibited indiscriminate behavior months to years after their eventual adoption.^{18, 19} Other researchers discovered a correlation between the duration of time in an institution and degree of indiscriminate behavior.

There has been debate in the literature as to whether indiscriminate behavior is an indicator of attachment pathology or whether it

represents simply a persisting adaptive response to environmental circumstance by institutionalized children. Children exhibiting this behavioral style can have difficulty forming supportive peer relationships, having been conditioned to prioritize and closely monitor adult reactions during their institutional years. Zeanah and colleagues attempted to elucidate the relationship between indiscriminate behavior and the presence or absence of an attachment figure in Romanian institutionalized children.²⁰ His research team compared two groups of children: one group had many different caregivers while the other group was structured so that the caregivers would interact more frequently and consistently with the children. The children with multiple, inconsistently scheduled caregivers displayed higher levels of indiscriminate behavior, regardless of whether the children in this group had a preferred caregiver. The authors concluded that this finding was consistent with other reports in the literature that found that indiscriminate behavior persisted even years after adoption.

Zeanah and colleagues designed the Bucharest Early Intervention Project in which institutionalized children were placed in foster care and then compared to their peers in institutional care and those living with their parents. They found that institutionalized children demonstrated disturbed attachments and indiscriminate behavior; they had impaired communication and lower intellectual functioning. They found that time with the mother before institutionalization could be protective and that foster care placement partially reversed some of these effects.²¹ Research conducted in a different population—Greek children living in institutions who were compared with age-matched controls living with families—also found that the institutionalized children had problems forming "confiding peer relationships" and had greater prevalence of symptoms such as hyperactivity, inattentiveness, and conduct problems. They also found that outcome was most likely improved if the institutionalized child had experienced strong attachments before entering the orphanage.²²

Other researchers have attempted to

answer the question of whether there are behaviors that are specifically associated with early life privation. Michael Rutter and his group, the English and Romanian Adoptees study team, compared 165 Romanian orphans adopted to homes in the United Kingdom (UK) before the age of 42 months with non-deprived children adopted from within the UK.²³ They found that poor attachment, "quasi-autistic features," cognitive impairment, inattention, and over-activity were associated with privation, constituting, in their terminology, "institutional privation patterns." Autistic features were most pronounced at the age of 4 years and included communication and social difficulties, deficits in social reciprocity and empathy, and circumscribed interests.²⁴ These behaviors usually became more marked some time after the children had arrived in the UK, and in most of the children the behaviors improved from the ages of 4 to 6 years. However, emotional difficulties, conduct problems, and poor peer relationships were not associated with early neglect or abuse. Most interestingly, one-fifth of children who spent the longest time in institutional care displayed normal functioning.

Despite having had severe privation in early life that included isolation, poor care, and infrequent contact with caregivers, resulting in low body weight, small head circumference, and poor overall health, the Romanian children were able to make substantial gains in physical and cognitive functioning after being adopted by families in the UK.²⁵ Similarly, most people exposed to a trauma overcome the experience and do not develop serious psychiatric disorders such as posttraumatic stress disorder (PTSD).

Why do some children appear to be more resilient than others in their response to adverse life circumstances and trauma? In adult studies, research has demonstrated that atypical biochemical responses to traumatic events, such as lower cortisol levels and increased heart rate at the time of stress, may increase the likelihood of developing PTSD.²⁶ Other factors that may predict PTSD are a history of prior traumatic experiences and the

nature and intensity of the early response. An individual's unique appraisal of the severity of past and present trauma may also exert an influence on traumatic memory potentiation by the amygdala and hippocampus in the context of a long-lasting, persistent stress response. In a person vulnerable to PTSD, prior traumas may sensitize the amygdala, thereby provoking an overreaction to the stimulus and unleashing an excessive sympathetic nervous system response.²⁷

Institutional living forces children into more isolated environments with more superficial and less protective attachment figures, resulting in distortions of their perception of danger. In addition, due to the circumstances of group living, they may be more sensitized, even if they have not been traumatized directly. Several adult studies suggest that the development of PTSD may occur even without subjects having been directly exposed to trauma. Shalev and colleagues studied two similar Israeli communities during a period of terrorist violence. Although the two communities differed in their level of exposure, residents reported comparable rates of PTSD symptoms. This study also found that disruption of daily routines contributed to the development of traumatic effects.²⁸ Another study demonstrated that adult offspring of Holocaust survivors had higher rates of PTSD than a comparison group, although they did not directly experience a greater frequency of traumatic events. This body of research illustrates the causal complexity factoring into the expression of PTSD. Not only is it possible to exhibit PTSD symptoms without immediate exposure to trauma, one may show effects from interactions with attachment figures who were traumatized and had PTSD themselves.²⁹ Symptoms in children may correlate with severity of PTSD symptoms in their adult caregivers, alluding to the mother's induction of anxiety in her child that Anna Freud noted long ago.³⁰ The time is ripe for an extension of these studies to the institutional setting where children are cared for by multiple caregivers and are in contact with traumatized peers. The hypothesis that children without secure attachments are more susceptible to trauma

experienced either directly or by their institutional peers can and should be tested.

The scientific literature contains several studies that elucidate the particular risks inherent in the institutional care of children and how these risks differ from those found in other foster care situations. Orphans in Iraqi Kurdistan were assessed for behavioral problems and PTSD symptoms. One group had been placed with foster care families and the other group lived in modern orphanages. The orphanage children were found to have higher rates of problematic behavior and a higher frequency of PTSD than those in foster care.³¹ In addition, aggressive behavior improved after a year in foster family placement but remained a significant problem in the institutionalized population. One limiting factor of this study is that the foster caregivers were all related to the children placed in their care and were not strangers to the children. However the authors argue that some of the children who sustained the most improvement had been placed with distant relatives, so that the amelioration in symptoms and behavior could be attributed to the "family construction of this care system, in contrast to the collective care of the orphanage." A five year follow-up study of institutionalized Eritrean children examined those who had been orphaned as a result of the thirty year war between Eritrea and Ethiopia that resulted in 5,000 children losing both of their parents. These children were compared five years later to children who had been placed in more personalized, nurturing residential settings recommended by outside consultants, "living as family units of mixed ages . . . together with a housemother who slept and ate with them." In this case the psychiatric symptoms associated with long-term institutionalization could be limited if children were placed in settings that respected their individuality, fostered collective identity and responsibility, and prioritized close personal relationships with at least one consistent caregiver.³²

The work with the orphans of Eritrea raises a crucial point. Even though it may be impossible to eradicate the need for institutions for orphaned and abandoned children,

especially in underdeveloped and war-ravaged areas of the world, thoughtful transformation of the institutional experience into one that, if not comparable to traditional care settings, may provide children with unique experiences and distinctive strengths could be feasible. Certainly, work has already been done to develop specific interventions to improve the institutional experience and optimize long-term outcomes for these children. In one study conducted in India, in a program called the Not by Bread Alone Project, the simple act of recruiting a full-time play therapist for an orphanage resulted in a sharp rise in mean

motor and mental developmental scores in children.³³

The plasticity of the child's developing brain imposes exquisite vulnerability to early trauma and neglect. However, this plasticity also holds promise that these children are biologically primed to benefit significantly from meaningful improvements in the structure and quality of their lives. As further research is devoted to this long-neglected area of institutional care, the resulting knowledge will inform social policy to ensure that the long-term potential of these children is preserved—for their sake and for ours as well.

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