

Determinants of Behavioural Problems in Romanian Children Adopted in Ontario

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Assessments of developmental status, attachment, and behaviour problems were conducted for 56 Romanian orphans adopted in Ontario. The group as a whole was functioning in the normal range and was considered well adjusted, but children who had experienced less than six months of institutional care had better outcomes than the rest on developmental measures. The adoptees showed an unusual distribution of attachment patterns: Secure attachment was less frequent than normally expected and avoidant attachment was not observed. Unexpectedly, neither age at adoption nor length of institutionalisation was related to attachment outcomes and it was suggested that the present preschool attachment system does not adequately capture attachment phenomena in this sample. Children who had more institution experience, those who were developmentally less competent, and those who were insecurely attached had more parent-reported behaviour problems.

When the Ceaucescu regime fell in Romania in 1990, the popular media in North America depicted the fate of large numbers of children whose parents, overwhelmed by crushing poverty and the disorganisation of their own lives, were unable to care for them. These children were placed in orphanages where physical care was barely adequate and large numbers of children were cared for by a few overburdened adults. One result of this media attention was that many North American families were moved to adopt children from these orphanages for humanitarian reasons. In addition, some parents who were unable to have children of their own and were

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frustrated by the long process of adopting domestically, recognised this as an opportunity to “jump the queue”. Furthermore, many parents who travelled to Romania to complete adoptions, sought out or were directed to younger babies whose parents wished to place them in orphanages or had abandoned them to the hospitals where they were born.

These adoptions raised many practical and theoretical issues. In Canada, there were concerns that the poor nutrition, physical growth, and developmental status of institutionalised children would drain the already burdened health care system. As part of an international team that visited Romanian orphanages, Ames began a follow-up study of such adoptees in British Columbia. Her observations, both in Romania and in the subsequent research, led to the concern that many adoptive parents were unprepared for the unusual demands of rehabilitating institution-reared children (Ames & Carter, 1992).

The work reported here parallels that of the group in British Columbia and focuses on the development of Romanian adoptees in Ontario. The interest of Canadian families in adopting Romanian children has not declined despite the frequent changes in adoption regulations by the Romanian government (McDade, 1991). Hence, it is important to document outcomes for a broad sample of early adoptees and their adopting families.

In addition to practical issues, we recognised that the current work was an opportunity to revisit the study of early plasticity, applying the knowledge of 1990 developmental psychology. One frequent explanation for detrimental effects of early institutional care is the lack of opportunity to form discriminating emotional bonds to a specific caregiver that are normally formed in the first year of life. In recent years, attachment theory (e.g. Bowlby, 1969) and methods (e.g. Ainsworth, Blehar, Waters, & Wall, 1978; Cassidy & Marvin, 1987, 1992) have provided us with a standardised and objective measure of the quality of child-parent relationships. Armed with these tools, we have a new opportunity to examine the quality of child-parent relationships of children deprived of individualised care in the first year of life. This, in turn, allows us to systematically assess the contribution that relationships with adoptive parents make to the behavioural outcomes of children who experienced early deprivation.

The adoptees we studied experienced both depriving institutions and international adoptions. In shaping our own study, we considered what contributions each of these factors might make to their well-being.

Psychological Effects of Early Deprivation

Early research on the psychological effects of depriving early experiences supports the notion that the effects of such experiences are irreversible. Goldfarb (1943a, b, 1945) described persistent cognitive and affective

defects in children whose early years were spent in institutions, even when they were later reared in foster homes. Furthermore, extensive deprivation of children in an institution was considered profoundly detrimental to psychological growth and accounted for in part by lack of an attachment figure in the institutional setting (Bowlby, 1951; Goldfarb, 1955; Spitz, 1956). However, in a classical experiment, Skeels (1966) found that orphanage children transferred to an institution for mentally retarded adults, where they received affection and attention, were more likely to develop normally, leave the institution, and become fully contributing members of society than peers who remained in the orphanage. Thus, it is not clear whether it is affection and attention *per se* or affection and attention from a primary caregiver that is the crucial deprivation in early institution care.

In the early work, the experiences included under the term "maternal deprivation" varied considerably and were loosely applied. In fact, the children in these studies lacked fathers, siblings, and family context as well as mothers. The extreme views held during the 1940s and 1950s about the permanent nature of damaging early childhood experiences have been re-evaluated in the light of equivocal results from later research.

Dennis (1973) studied 89 children adopted from a Lebanese institution by both Lebanese and US families and found that children who were placed in adoptive homes after the first two years of life showed impairments of intellectual and social abilities. However, earlier adoptions led to better outcome (Dennis, 1973). Selective factors (e.g. different adoptive practices or preferences in place during the study period in Lebanon), sample loss and lack of information about adoptive families make it difficult to evaluate this study.

Tizard and Rees (1975) described the development of 65 children whose first years had been spent in institutions in England. The institution group had different but no more frequent problems than a noninstitution comparison group. A minority of children were described as overfriendly to strangers: Most of the children were believed to have formed close attachments to adults as reported by parents (Tizard & Rees, 1975).

In a follow-up of these children, teachers found the former institution children more problematic than did their parents. The major complaints were excessive attention-seeking, restlessness, disobedience, and poor peer relations. These problems were described as an almost insatiable desire for adult attention and difficulty in forming good relationships with their peer group (Tizard & Hodges, 1978). At 16 years of age, adjustment difficulties similar to those reported at 4 and 8 years, primarily in social and peer relations, were still evident (Hodges & Tizard 1989a, b).

Long-term effects of early institutional care in Sweden were studied by Bohman and Sigvardsson (1980). In a sample of 579 children, teachers reported more problems for the institution group than their controls at 11

years of age. However, this difference was not evident in a follow-up at 15 years.

These findings suggest that long after leaving the institution some children still show the effects of early institutional rearing and that these effects were primarily in the area of social relationships. The discrepancy between the British and Swedish data may be explained by differences in institutional standards of care, length of institutional stay, and sparsity of background information on the children.

International Adoptees

Outcome studies of international adoptees also show some conflicting findings. Difficulty in interpretation arises because information on the age of the child at adoption, age distribution when assessed, and health and psychological status of the child at adoption is not reported. Often, such data are simply not available. Some evidence on short-term outcomes indicates that transient emotional and behavioural difficulties occur in some international adoptees (Kim, Hong, & Kim, 1979; Tizard, 1977). Indeed, it would be surprising if the major life changes that accompany international adoptions did not entail adjustment problems.

Nevertheless, most studies of international adoptees as adolescents indicate that the majority are well adjusted. This was the case for 2148 adopted 12- to 15-year-olds in the Netherlands in comparison with 933 same age controls (Verhulst, Althus, & Versluis-den Bieman, 1990). However, on both parent and teacher reports, boys generally received higher scores than girls and compared to the nonadopted group, the adopted boys were twice as likely to score above the clinical cut-off on the Child Behavior Checklist (CBCL) (Achenbach & Edelbrock, 1983).

In a similar study in Norway, Andresen (1992) used parent and teacher reports to assess 151 12- to 13-year-old international adoptees and 135 controls. Although the adoptees scored higher than the controls on total problems and on the hyperactive subscale, these were not significant differences. However, males consistently showed more problems than females.

More recently, Westhues and Cohen (1994) reported on the subsequent adjustment of 155 international adoptees, adopted into Canada. They found that adolescent adoptees showed higher self-esteem than those in the general Canadian population and that their peer relations were similar to those in the general population. Some concerns were raised with respect to adjustment in the areas of ethnic and racial identity.

Thus, international adoptees are generally found to differ only minimally from nonadopted controls. Boys consistently appear to be more problematic than girls. In this respect, international adoptees show a pattern similar to

that of nonadopted children. The minor variations in findings may be explained by variation in research designs and data collection strategies, which range from mailed survey questionnaires to face-to-face interviews. Age of follow-up varies, as do the procedures in the sending and receiving countries.

However, most studies confirm that age of adoption is a salient factor in predicting behavioural adjustment. Both length of time that initial behaviour problems persist and the incidence of problem behaviours depend partly on the child's age at arrival (Kim et al., 1979; Verhulst et al., 1990). Children adopted at older ages are more vulnerable to behaviour problems.

Romanian Adoptees

Romanian adoptees are the most recent group of international adoptees to be studied. Part of the widespread interest in Romanian orphans stems from extensive media coverage of the severely depriving conditions in Romanian orphanages. The pre-adoption living conditions of children in other studies of institutional effects varied considerably but were not always described in detail. The Romanian orphanages, however, were described as being extremely poor (Ames & Carter, 1992). The follow-up of children in Romanian orphanages has focused more explicitly on the effects of early deprivation. Thus far, several groups of children have been followed and initial data have been reported concerning health and psychological and developmental status at adoption.

In a sample of 65 Romanian preschool adoptees assessed by the International Adoption Health Clinic in Minneapolis, 55 had medical, developmental, or behavioural difficulties (Johnson et al., 1992). Neurodevelopmental abnormalities were noted in 12 children and there was a high incidence of hepatitis B, intestinal parasites, and other infectious diseases. No psychological assessments were made at this centre.

Ames and her colleagues compared the development of Romanian adoptees in British Columbia to nonadopted preschoolers (Ames, Fischer, & Savoie, 1994). They report considerable progress in behaviour and development at 13 months post-adoption. However, in comparison to biological parents, adopting parents reported considerably more behavioural difficulties. At preschool age the Romanian children adopted from orphanages had more behaviour problems than those adopted earlier (from hospital or families) or Canadian-born controls. However, there was no group in this study whose mean scores exceeded the clinical cut-off on the measure of behaviour problems (CBCL, Achenbach & Edelbrock, 1983), and the orphanage group were continuing to improve. The orphanage group

also received lower ratings from parents on security of attachment to mother than did the others (Chisholm, Carter, Ames, & Morison, 1995).

Early data from a survey of 105 families across Canada that adopted Romanian children report a high incidence of initial problems with developmental delays, eating problems, medical problems, and stereotypical behaviours (Marcovitch, Cesaroni, Roberts, & Swanson, 1995). Smaller numbers of parents reported sleeping difficulties, attachment difficulties, and tantrums. Once children reached preschool age parents reported that these difficulties decreased considerably although some concerns remain.

The present report assessed a subgroup of 56 families from the Ontario sample that were available and willing to participate in more detailed medical psychosocial and developmental follow-up of their children. We considered the influence of three factors on the occurrence of behaviour problems in Romanian children adopted in Ontario: (1) pre-adoption experience; (2) severity of developmental delay; and (3) quality of child-mother attachment. It was predicted that children who had longer periods of institutional care, those who were less competent developmentally, and those who were insecurely attached would have more behaviour problems.

METHOD

Sample

The children were adopted between January 1990 and April 1991 and were 3–5 years of age at the time of assessment. Families were recruited from among those who responded to a survey distributed by SPARK (Support for Parents Adopting Romanian Kids, Marcovitch et al., 1995). Of 150 respondents, 85 families expressed interest in coming to the laboratory and 56 who lived within commuting distance of the hospital participated.

Thirty-seven children had spent less than 6 months in hospitals and orphanages in the first 6 months of life (Home Group), and 19 had been in institutional care for more than 6 months (Institution Group, range for the sample 0–48 months in institution). Those who had spent long stays in institutional care were necessarily older at adoption than those adopted early from homes or hospitals. The correlation between age of adoption and time in institution was .86. Therefore, it is impossible to distinguish the effects of age at adoption from time in institution. Table 1 summarises the demographic characteristics of adopted children and their families by group.

Other than significant differences on the measures reflecting group selection, Home and Institution groups did not differ on most of the measures. However, children in the Institution group were adopted into homes where they had more siblings (Institution/Home comparison: $\bar{x} = 2.7$ vs. 1.7, $t = 3.01$, $P < .01$).

TABLE 1

Demographics for Adoptees and Families for Two Groups (Standard Deviations in Parentheses)

	<i>Time in Institution</i>	
	<i>Home <6mos</i>	<i>Institution ≥6mos</i>
Number	37	19
Age at adoption (mos)	6.5 (8.6)	28.3 (13.2)***
Time in institution (mos)	0.9 (1.3)	27.3 (13.3)***
Females (%)	59.4	47.4
Mother's age (yrs)	38.9 (5.8)	39.1 (5.8)
Father's age (yrs)	38.9 (5.3)	42.6 (7.5)
No. of siblings	1.7 (0.6)	2.7 (1.3)*
Outside maternal employment (%)	64.8	63.1
SES ^a (Blishen, 1967)	58.3 (9.3)	59.7 (16.1)

^aSES, Socioeconomic status; * $P < .01$; ** $P < .001$; *** $P < .0001$.

Procedure

Each family came to the Hospital for Sick Children on two occasions. The first visit was devoted to a psychological and educational assessment and an interview about the adoptive experience. The second included a paediatric assessment and an assessment of child-parent attachment. In addition, parents responded to questionnaires about their child's behaviour and temperament, as well as their experiences of parental stress. The present report is concerned only with the assessments of behaviour problems, developmental status, and child-parent attachment.

Measures

Outcome. The Child Behavior Checklist (CBCL) (Achenbach & Edelbrock, 1983) completed by the parents was the primary measure of child behaviour problems. It is a widely used measure of child behaviour and adaptation that includes 118 items scored on a scale of 0–2 reflecting presence and severity of symptoms. Comprehensive normative data as well as satisfactory reliability and validity are reported by Achenbach & Edelbrock (1983).

Three scores are obtained for Total, Internalising, and Externalising problems. The Internalising subscore reflects problems that entail discomfort for the child but are not disruptive to others (e.g. depression, social withdrawal), whereas the Externalising scale assesses problems that are disruptive to others (e.g. aggression, hyperactivity). Higher scores indicate more severe behaviour problems.

Predictors

1. Pre-adoption experience. Length of time in institutional care was

considered as the measure of pre-adoption experience. It was not, as explained earlier, independent of age at adoption.

2. Two measures of developmental status were used. Each child had a developmental assessment on the first visit. Because children differed in age and language abilities, a variety of standardised instruments were used. In the majority of cases, the Stanford-Binet Intelligence Scale (4th edition) was appropriate. The other instruments included the Bayley Scales of Infant Development, the Merrill Palmer Scales, and the Leiter International Performance Scale. In order to have a uniform developmental measure, we calculated a simple developmental quotient ($DQ = \text{Mental Age} / \text{Chronological Age} \times 100$) for each child.

The second developmental measure was the Survey Form of the Vineland Adaptive Behaviour Scales (Sparrow, Balla, & Cicchetti, 1984), administered to the mother during the interview session. The Vineland yields scores in four domains (communication, daily living skills, socialisation, and motor skills) in addition to a total score. As with DQ, higher scores indicate greater developmental competence.

3. Child-mother attachment was measured on the second visit in the *strange situation* (Ainsworth et al., 1978), a semi-structured observation procedure which entails two child-parent separations: one in which the child is with a recently familiarised female stranger, and one in which the child is alone. Thus, each child has two reunions with the parent after mildly stressful separations. The procedure is videotaped and each child-parent pair is classified on the basis of reunion behaviours into one of several attachment patterns. The classification scheme used in the present study was one developed by Cassidy and Marvin (1987, 1992) specifically for use with preschoolers. It assigns each pair to one of five patterns, one considered secure (B) or optimal, and four considered insecure: avoidant (A), dependent (C), controlling (D), or insecure-other (I-O). For purposes of analysis, the controlling and insecure-other patterns, which are rare in normative groups, were combined. (Subsequently, we refer to this group as "controlling".)

RESULTS

Behaviour Problems

Comparisons were made between the Home and Institution Group. Mean CBCL scores for both groups were well within the normal range. However, the Institution group consistently received higher scores than the Home group (Total score: $\bar{x} = 55.0$ vs. 47.9; Internalising: $\bar{x} = 47.7$ vs. 44.3; Externalising: $\bar{x} = 52.8$ vs. 49.4). The MANOVA for these group comparisons was significant [$F(3,49) = 5.26$, $P < .005$]. Univariate

ANOVAS showed the differences to be significant for the Total scores [$F(1,51) = 5.02$, $P < .05$], but not for the Internalising [$F(1,51) = 1.69$], or Externalising scores [$F(1,51) = 1.10$]. Thus there was not a specific preponderance of internalising or externalising problems but the institution reared children were more likely to have problems without a bias toward either type.

Developmental Status

With respect to DQ, mean scores for each group were in the average range. However, the Home group scored within the high average range ($\bar{x} = 110.6$), whereas the Institution group scored within the low end of the average range ($\bar{x} = 89.5$), a statistically significant difference ($t = 5.70$, $P < .0001$). On the Vineland, a similar pattern emerged. Children in the Home group obtained higher scores on all scales than those in the Institution group [Communication: $\bar{x} = 107.8$ vs. 79.7; Daily Living skills: $\bar{x} = 101.6$ vs. 84.9; Social skills: $\bar{x} = 101.4$ vs. 81.9; Motor skills: $\bar{x} = 108.3$ vs. 86.7]. The MANOVA showed the overall difference to be significant [$F(3,49) = 6.87$, $P < .0005$] as well as each of the univariate comparisons [Communication: $F(1,51) = 23.7$, $P < .0001$; Daily Living skills: $F(1,51) = 9.26$, $P < .005$; Social skills: $F(1,51) = 13.06$, $P < .001$; Motor skills: $F(1,51) = 15.9$, $P < .0005$].

Both measures of developmental status were negatively correlated (Pearson r) with CBCL scores. However, for the Vineland, all three correlations remain statistically significant (Total: $-.39$, $P < .01$; Internalising: $-.34$, $P < .05$; Externalising: $-.48$, $P < .01$). For DQ, only one of the three is significant [Total: $-.17$ (n.s.); Internalising: $-.21$ (n.s.); and Externalising: $-.30$, $P < .05$]. Thus, children who were having difficulty with age appropriate skills were more likely to be reported as having behaviour problems and this was more evident when the developmental measure tapped adaptive skills.

Child-Parent Attachment

Figure 1 shows the distribution of attachment patterns for the adoptee sample. Systems for scoring preschool attachment are relatively new and normative data are limited. For comparative purposes, we plotted data from a sample of healthy 4-year-olds from one of our other studies ($N = 38$) and compared the two groups by means of chi-square tests.

Several features of the adoptee group as a whole are notable. First, the rate of secure attachment is significantly lower than in the comparison group (30% vs. 42%). Second, avoidant attachment, the most common form of insecurity in the comparison group (and most normative samples) is completely absent in the adoptee sample. Third, both dependent and

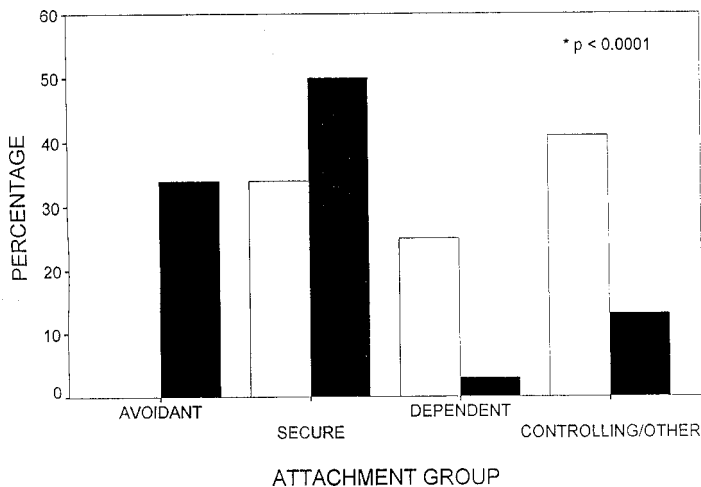


FIG. 1. Distribution of attachment patterns for adoptees ($\square$, $n = 44$) and comparison group ($\blacksquare$, $n = 38$).

controlling attachment are over-represented in the adoptee relative to the comparison group [dependent 25% vs. 3%; controlling 42% vs. 10%; chi-square (3 df) = 28.9, $P < .0001$]. Comparison of Home and Institution groups revealed no significant differences [chi-square (2 df) = 1.02].

To determine whether attachment was related to behaviour problems, we conducted a MANOVA on CBCL scores (Total, Internalising, Externalising) with attachment group (secure, dependent, controlling) as the independent variable. Although securely attached children consistently had the lowest CBCL scores, attachment group differences were small and not significant. However, if we consider children scoring over the clinical cut-off on the Total CBCL scale, 20% of secure children, 36% of dependent children, and 44% of those in the controlling/insecure-other group scored above the clinical cut-off (Fig. 2). Dependent children were 1.8 times more likely and controlling children 2.2 times more likely than secure children to be in the clinical group. For the comparison group 12% of the avoidant children, 22% of secure children, 25% of dependent children, and 6% of controlling children scored in the clinical range.

DISCUSSION

The general picture of these adoptees is one of children who are reaching developmental milestones, functioning at least within the low average range and experiencing few behaviour problems. Time in institution was related to both developmental status and report of behaviour problems on the Child Behavior Checklist. In both cases, those in the Home group had better

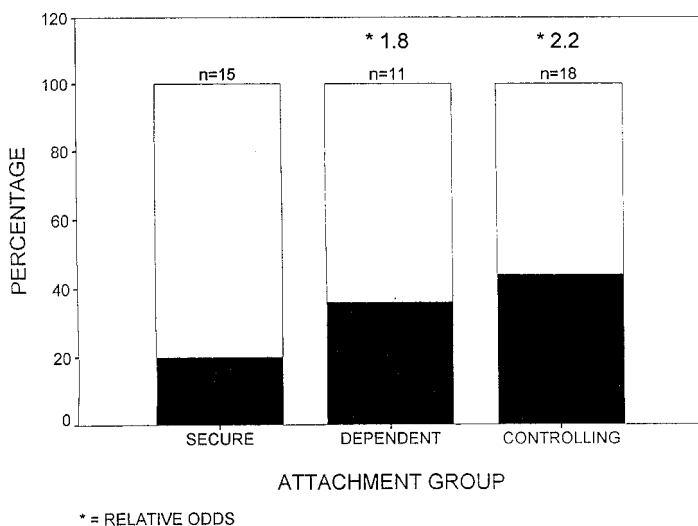


FIG. 2. Percentage of children scoring above the CBCL clinical cut-off by attachment group (□, below cut-off; ■, above cut-off).

outcomes than those adopted from institutions. Because time in institution and age at adoption were highly correlated, it is impossible to evaluate these as distinct influences on post-adoption adjustment. The current literature is equivocal on this issue. Westhues and Cohen (1995) found that age of adoption was not a predictor of adjustment at adolescence for international adoptees. Adjustment outcomes included measures of self esteem and peer relations. In contrast Kim et al. (1979) and Hoksbergen (this issue) find that age of adoption is a predictor of behaviour problems with children adopted at older ages more likely to have behaviour problems. It is important to note that the general positive outcomes seen in both groups in our study corroborates the report of the study of Romanian adoptees in British Columbia (Ames et al., 1994). A more detailed examination indicated that adoptees from institutions were reported to have more behaviour problems than those from homes (and a comparison group of Canadian-born children), as well as unique problems (Fisher, Ames, Chisholm, & Savoie, 1995). For example, in their institution group adoptees with more than eight months of orphanage experience who had eating problems were reported to either refuse solid food or eat too much, whereas children in the other groups who had eating problems were usually described as eating too little or being picky eaters. Tizard and Rees (1975) in their earlier study of children adopted from institutions found generally positive behavioural outcomes. The institutional background of the children in their sample appears to be less deleterious than that in typical Romanian orphanages. Taken together,

these findings suggest that children are able to recover from early deleterious experiences. The Romanian adoptees, in particular, have shown remarkable resilience in adapting to their new lives, but remain vulnerable to specific behaviour problems.

There were few demographic differences between adopting families in the Home versus Institution groups. However, children with more institution experience did have more siblings to adapt to than their peers and this may have contributed to their greater vulnerability to behaviour problems or to parent perception of more behaviour problems. Although joining a larger family may demand a more complex adjustment from the adoptee, it may also limit the amount of time and energy that parents can direct to the adoptee. Depending on the age of children already in the family, older siblings may also serve as caregivers for the newly adopted child.

The adoptee group as a whole was unusual with respect to the patterns of attachment shown with mothers. The most striking finding was the complete absence of avoidant attachment, the most common form of insecure attachment in normative samples. Avoidant attachment is generally considered to reflect a history of care in which the attachment figure frequently ignores the infant's distress. The child learns to avoid expressing attachment needs for fear of being rejected (Ainsworth et al., 1978). This leads us to consider the following possible explanations for the absence of avoidance in our sample: (1) in the environments from which these children came, avoidant attachment would not have been adaptive. Possibly, those who developed an avoidant style did not survive; (2) parents who make the effort of adopting a child internationally are not likely to ignore their adopted children's distress often enough to produce an avoidant child; (3) the ability to form a relationship with a new child is important enough in *any* adoption that adoptees are generally unlikely to receive the kind of care that leads to avoidance. These are conjectures to explore in further work.

The lack of difference in attachment between Home and Institution groups was unexpected. It differs from the data of Chisholm et al. (1995) in which such differences were reported based on parent reports. The present data reflect an attachment measure from standardised observations coded from videotapes and this methodological difference may partially explain the different findings. Nevertheless, a difference between the Home and Institution groups was expected. We coded attachment using a scheme developed by Cassidy and Marvin (1992) that is based only on parent-child reunions. In some cases of children who were otherwise considered secure, we observed indiscriminately friendly behaviour toward the stranger (in the strange situation) that appeared incompatible with secure attachment. If attachment is a behaviour system whose function is protection, indiscriminately friendly behaviour toward strangers, which could be dangerous for preschoolers, should not co-occur with secure attachment.

In a pilot study in our laboratory, a subgroup of adoptees was matched on gender, age, and attachment status (secure, avoidant, dependent, controlling, insecure-other) with controls from other studies. Securely attached adoptees showed significantly more indiscriminately friendly behaviour to the stranger than their matched controls. This was not the case for those who were insecurely attached (Sabbagh, 1994). This suggests that we may indeed have some “false secures” among the adoptees and this could account for absence of differences in Home and Institution groups. Although Chisholm and her colleagues (Chisholm et al., 1995) initially found no relation between parent reports of attachment and parent reports of indiscriminately friendly behaviour, by the time their sample was 4½ years old, ratings of security and indiscriminately friendly behaviour were negatively correlated. This is consistent with the view that indiscriminately friendly behaviour to strangers is inconsistent with optimal attachment.

The relationship between attachment status and behaviour problems was weak. Whether this relationship would be strengthened by clarifying the attachment status of “false secures” remains to be seen. However, it is worth noting that whereas Romanian adoptees with insecure attachments were more likely to score in the clinical range on the CBCL than their securely attached peers, this was not the case in the comparison group. This suggests that it is not insecure attachment *per se*, but rather insecure attachment combined with other risk factors that contribute to the behaviour problems in the adoptee group.

Additionally, because attachment and behaviour problems were assessed in the same time period, we cannot make assumptions about the direction of influence. Some earlier studies have shown that infant attachment is related to preschool behaviour problems. Thus, adoptees who are able to form secure relationships with adopting parents may be protected from behaviour problems. It is also possible that behaviour problems that existed prior to the adoption interfered with the formation of secure attachments. The presence of a behaviour problem may also affect the behaviours observed in the *strange situation* so that we make judgements about attachment through the filter of behaviour problems.

Finally, both attachment and behaviour problems may reflect some aspect of pre-adoption experience. Length of time in an institution was related to Child Behavior Checklist scores but was not related to attachment security as presently scored. It will be interesting to see whether a modified scheme for attachment in this sample, one which accounts for “false secures” will change our findings.

In our experience, the parents in our study were most concerned with ensuring their adopted children's physical health and appropriate development. They were less likely to worry about the kind of relationship the child would form with them, or his/her behavioural adjustment. Our

present data suggest that these are potential areas of vulnerability in this population and preparation for adoptive parents should include increasing awareness of possible difficulties in social adjustment.

Our current findings of behavioural development in these preschoolers that is within average limits, however, speaks to the general resilience of infants and young children who have been adopted from more difficult circumstances. Cautious optimism that the effects of early but short institutional stays can be reversed is therefore offered.

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