

Late Adoption, Attachment and Emotional Understanding

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Objective: To explore protective and risk factors in adoption adjustment on a sample of 30 previously institutionalised adopted children by investigating the correspondence between mother and children's pattern of attachment and children's emotional competence. **Method:** Six to nine months after adoption, the Adult Attachment Interview was administered to each mother. Twelve to 18 months after adoption, children's pattern of attachment was assessed using the Manchester Child Attachment Story Task; two years after adoption children's emotional understanding was tested by means of the Test of Emotion Comprehension. **Results:** A correspondence of 76,6% ($k = 0,47$) was found between mothers' secure-autonomous state of mind and children's secure attachment. Although adoptees showed impaired performance in emotion comprehension compared to normative data ($t = -3,238$, $p \leq 0,005$), a correlation was found between impaired emotional competence and insecure ($r_{pb} = 0,46$) and disorganized attachment ($r_{pb} = 0,44$). **Conclusion:** Adoptive mothers' secure mental representation of attachment represents a protective factor for adopted children's attachment distribution. A secure and organised attachment pattern in late adopted children is associated with better emotional understanding.

Key words: *late adoption, attachment, emotional understanding.*

I

Developmental pathways from institution to adoption

According to data available from the Italian adoption services (CAI, 2011) late adoption rates are on the increase. It is estimated that in 2011 more than 4.000 internationally adoptees were placed in adoptive families, and adoption rates in other European countries and even the USA are even higher than that of Italy. In spite of this trend, there is still a paucity of adequate and methodologically rigorous research in this field (Miller Wroebel, 2009).

If adoption can be considered a "natural intervention", able to assure the child a catch-up along different domains of child development (Zeanah *et al.*, 2003; van IJzendoorn, Juffer, 2006), further studies are needed to better clarify

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variables and processes involved in the *psychological adoption adjustment* (Palacios, Brodzinsky, 2010).

Following this assumption, the aims of the present study were twofold: to analyse the relationship between mother's and children's attachment representations; to explore adopted children's emotional understanding and its relationship with pattern of attachment.

1. *Patterns of Attachment.* Studies conducted so far to assess children's pattern of attachment during their stay in an orphanage have found a predominance in the disorganized category of up to 70% (65% of children with a primary disorganized category and a further 13% unclassifiable, with no clear strategy at all; Vorria *et al.*, 2003; Zeanah *et al.*, 2005). If we compare these results with data available from normative families (15%) (van IJzendoorn *et al.*, 1999; Barone *et al.*, 2009), institutionalization appears to be a significant risk factor for children's emotional development. However, it should be emphasized that an impressive degree of recovery is also present: the adoptive family seems to represent a pivotal protective factor against this emotional vulnerability, with 31% of children placed in adoptive families presenting a primary D category (van den Dries *et al.*, 2009): a considerable catch-up compared with children in institution. Of interest, if late adopted children (i.e. children adopted after their first birthday) present more insecurity compared with early adoptees (i.e. children adopted before their first birthday), no difference was found for age at placement considering the disorganized category (van den Dreis *et al.*, 2009).

Aimed at identifying processes involved in this recovery, some studies have assessed the role of adoptive parents' mental representations on adoptees' patterns of attachment, with promising results (e.g. Steele *et al.*, 2008; Pace, Zavattini, 2010; Barone, Lionetti, 2011). Other studies, summarized below, have assessed the emotional adjustment of adoptees, with the main focus on children's emotional competence.

2. *Emotional Competence.* Recent studies on at risk samples have shown that children who have experienced maltreatment and neglect present impaired emotional competence (Pollak *et al.*, 2000), major difficulties in regulating emotion (Wisner Fries *et al.*, 2005; Alink *et al.*, 2009) and have to struggle with episodic emotional dysregulation when attachment is activated (van Londen, Juffer, van IJzendoorn, 2007). Studies conducted up to now concerning adoptees' emotional competence are somewhat contradictory. On a sample of 18 children placed into adoptive families between 7 and 42 months of age, Wisner-Fries and Pollak (2004) found impaired emotional understanding, related to duration of institution, as assessed at 10 to 48 months after adoption. Similarly, Vorria and colleagues (2006) found impairment in emotional competence in a sample of 61 children adopted between 12 months and 3 years of age, although there was no clear association with age at placement and time in the institution. Conversely,

Camras and colleagues (2006), and Tarullo, Bruce and Gunnar (2007) found no impairment in adoptees' emotional competence on samples adopted respectively before their first birthday (Tarullo *et al.*, 2007) and from 6 months to 3 years of age (Camras *et al.*, 2006).

3. *Attachment and Emotional Competence.* Recent studies which have tried to identify the factors involved in the somewhat contradictory results on adoption and emotional competence summarized above, have taken into account both attachment and emotional competence in studying adoptees' adjustment, stressing the importance of considering insecure and disorganized patterns of attachment as a risk factor for adoptees' emotional competence (Barone, Lionetti, 2011b). In accordance with these results, studies on normative samples found a correlation between impaired emotional competence and insecure (De Rosnay, Harris, 2002) and disorganized (Colle, Del Giudice, 2011) patterns of attachment. However, few studies have taken these variables into account jointly in adoption samples.

As we can see from this brief review, data reported until now are somewhat contradictory, calling for efforts to clarify the issues in the development of late adopted children by means of standardized procedures. The recent recommendation made in Palacios and Brodzinskys' (2010) exhaustive and authoritative reviews on adoption research appears to be particularly cogent. These authors stress the importance of studying individual differences and family processes as future directions for attachment research.

In line with this recommendation, the second aim of the present study was to better clarify family and individual variables involved in adoption adjustment, taking into consideration two specific dimensions: children's attachment patterns and their emotional understanding.

2 Methods

2.1. Aims and hypothesis

The aims of the present study were:

1. to analyse the relationship between adoptive mothers' attachment mental representations and children's patterns of attachment;
2. to explore adopted children's emotional competences in an emotional-understanding task;
3. to investigate the relationship between children's patterns of attachment and emotional competence.

Specifically, our hypothesis were that:

1. an association would be found between mothers' attachment state of mind and children's patterns of attachment;

2. adopted children would show impairment in emotional understanding as measured by the Test of Emotion Comprehension.
3. adopted children's performance on the Test of Emotion Comprehension would be worse for insecure and disorganized children than for secure attached adoptees.

2.2. Sample

30 children (including one set of siblings) – 22 males and 8 females – and their adoptive mothers participated in the study. Age at placement was $M = 4,7$ years, $SD = 1,6$ years. Inclusion criteria were: first adoption; international adoption; permanence in an institutional context before adoption; age at placement from 3 to 5 years old; adequate language development as reported by families and children's preschool teachers. Exclusion criteria were: mental or physical disabilities.

2.3. Measures

Adult Attachment Interview (AAI). The AAI is a semi-structured interview, recorded and verbatim transcribed, aimed at exploring attachment mental representations in adulthood (George *et al.*, 1985; Main *et al.*, 2002). The interviews are analysed by means of a complex system of measures on 9-point likert scales. Decoding of the results along the scales yields an attachment classification category: F = autonomous/secure; DS = insecure/dismissing; E = insecure/preoccupied; U = unresolved/disorganized.

Manchester Child Attachment Story Task (MCAST). The MCAST is a semi-structured observational procedure aiming at assessing patterns of attachment in children aged 4 to 8 years old. It is a doll-play vignette completion method with a coding system based on narrative and behavioural content and style. Developed by Green and colleagues (2000) and recently further validated for its psychometric proprieties on a large multicentre study ($N = 230$) (Barone *et al.*, 2009), MCAST classification is organized into four main attachment categories: B = secure; A = insecure/avoidant; C = insecure/ambivalent; D = disorganized.

Test of Emotion Comprehension (TEC). Developed by Pons and Harris (2000), TEC is an emotional comprehension test for children aged 3 to 11 years old, aiming at assessing children's emotional performance through the ability to recognize emotional expressions and feelings related to stories. Data on a normative sample are available from an Italian validation study (Albanese, Molina, 2008).

2.4. Procedure

Six to nine months after adoption, adoptive mothers participated in the Adult Attachment Interview (George, Kaplan, Main, 1985; Main, Goldwyn, Hesse,

2002) at home; children's patterns of attachment were assessed by means of the Manchester Child Attachment Story Task (Green *et al.*, 2000) 12 to 18 months after adoption; and 8 to 10 months after attachment assessment, children's emotional understanding was assessed using Test of Emotion Comprehension (Pons, Harris, 2000).

Attachment distributions and emotional understanding were compared with normative data on attachment distribution from low-risk samples (Barone *et al.*, 2009; Bakermans-Kranenburg, van IJzendoorn, 2009) and with normative data from the Italian adaptation of TEC (Albanese, Molina, 2008).

3 Results

3.1. Children's patterns of attachment

Children's patterns of attachment distribution was as follow: 27% (n = 8) presented a primary organized category –B; 30% (n = 9) an insecure/avoidant pattern of attachment –A; 7% (n = 2) a primary insecure/ambivalent pattern –C; and 36% (n = 11) children were coded as primarily disorganized –D (TAB. 1). Comparing this distribution with normative data (Barone *et al.*, 2009) showed that adopted children present more insecure (B vs non B, $\chi^2(1) = 11,33$, $p \leq 0,001$) and more disorganized (D vs non D, $\chi^2(1) = 20,11$, Fisher's Exact Test = 0,001) patterns of attachment.

TABLE 1
Attachment distribution of adoptees compared with normative data

	Secure (B)	Avoidant (A)	Ambivalent (C)	Disorganized (D)	B vs non-B $\chi^2(1)$	D vs non-D $\chi^2(1)$
Adoptees (n = 30)	8 (27%)	9 (30%)	2 (7%)	11 (36%)		
Normative data (n = 230)*	145 (63%)	37 (16%)	23 (10%)	25 (11%)	11,33**	20,11***

* Normative data from Barone *et al.*, 2009.

** $p \leq 0,001$.

*** Fisher's Exact test = 0,001.

3.2. Concordance between mothers' and children's attachment

Adoptive mothers' (n = 29) mental representation of attachment distribution was: 52% (n = 15) secure, 31% (n = 9) insecure/dismissing, 17% (n = 5) insecure/

preoccupied. Moreover, 14% ($n = 4$) were coded as primarily unresolved regarding loss.

No difference was found between our data and the normative distribution reported by Bakermans-Kranenburg and van IJzendoorn (2009; F vs non F $\chi(1) = 0,47$, n.s.; U vs non U, $\chi(1) = 0,08$, n.s.).

Mother-child concordance, computed on 30 dyads, yielded a correspondence of 76,6% ($K = 0,47$, TAB. 2) considering the 2-way attachment match (i.e. security vs other) and of 53,3% ($K = 0,37$) considering the four way attachment distribution (secure vs. insecure avoidant/dismissing vs insecure ambivalent-disorganized vs primary unresolved/disorganized).

TABLE 2

Two way attachment concordance between mothers (AAI) and children (MCAST)

Adopted children	Adoptive mother	
	Secure	Insecure
Secure	8	0
Insecure	6	16

$K = 0,47$; 76,6%.

3.3. Late adoptees emotional understanding

Comparison of adoptees' scores with those for normative peers from biological families (Albanese, Molina, 2008) revealed that adopted children scored lower at TEC if compared with their normative peers ($M = 4,41$, $DS = 2,19$) ($M = 5,66$; $DS = 1,12$; $t(29) = -3,238$, $p \leq 0,005$). A point-biserial correlation between attachment and emotional competence showed a significant relationship between compromised emotional understanding and disorganized ($r_{pb} = 0,44$, $p < 0,05$) and insecure ($r_{pb} = 0,46$, $p < 0,05$; cfr. TAB. 3) patterns of attachment.

TABLE 3

Age-standardized score at tec and children's pattern of attachment

	Secure	Insecure	Organized		Disorganized	
	M (DS)	M (DS)	r_{pb}	M (DS)	M (DS)	r_{pb}
TEC	0,09 (1,37)	-1,15 (1,08)	0,46*	-0,34 (1,23)	-1,49 (1,11)	0,44*

* $p < 0,05$.

Discussion and conclusions

The first aim of the present study was to assess concordance between mothers' attachment state of mind and children's patterns of attachment in adoptive dyads. Considering the 4-way attachment distribution, a correspondence of 53% was found between mothers' attachment representations and children's patterns of attachment. When the two-way attachment distribution was taken into account, in order to detect protective factors for children's secure attachment, our results showed that almost every child with a secure pattern of attachment had a mother with a secure attachment representation, whereas attachment disorganization in children was mainly related to an unresolved ($n = 3$) or insecure ($n = 6$) pattern of attachment in the adoptive mothers.

Of interest, whereas in normative families a primary disorganized category in children was mainly found to be related to an unresolved state of mind in parents (van IJzendoorn, 1995; Goldwyn *et al.*, 2000), in adoption dyads things seemed to be different: not only a primary unresolved state of mind but also an insecure one appeared to be related with attachment disorganisation in children. This finding, in line with previous results from Dozier and colleagues on a sample of foster-care dyads (Dozier *et al.*, 2001), suggests that children who have experienced early adversity and the absence of an adequate caregiving environment are specially in need of a caring and sensitive parent, able to handle the sometimes disregulated emotionality of their children. In this context, a secure mental representation of attachment in mothers can thus have a protective role, increasing the children's likelihood to present a secure-organised attachment.

The second aim of the present study was to assess the degree of children's emotional understanding, and to better clarify the relationship between attachment and children's emotional competence. Comparison between adoptees and normative data (Barone *et al.*, 2009; Bakermans-Kranenburg, van IJzendoorn, 2009) indicated significant impairment in emotional understanding in the sample of late adopted children. However, this finding doesn't seem to be related only to the adoption condition in itself: a further analysis revealed that adoptees with a secure Internal Working Model present a higher emotional understanding compared with insecure and disorganized adoptees.

Even considering the small sample size and the impossibility to collect any children's attachment measure before the adoption placement, which represent the main limitations of the present study, we feel that our results highlighted specific protective and risk factors that affect adjustment to adoption from an institution to a home environment, specifically: *a*) an autonomous/secure state of mind in the adoptive mother is a protective factors in development of the child's attachment pattern; *b*) not only unresolved but also insecurity attachment in

adoptive mothers represents a potential risk factor to the resolution of previous attachment-related traumatic experience; *c*) security and organized attachment in children are related with better emotional understanding; *d*) impaired emotional understanding is related not only with the adopted condition in itself, but seems to be associated with insecurity and disorganized attachment.

We believe that these findings, if further replicated on larger samples, could represent a fruitful contribution to the understanding of the process of adjustment to adoption. Specifically, these protective and risk factors could represent the starting point from which to develop programs to promote and sustain the adoptive families and the adoptees emotional development.

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Riassunto

Obiettivo: esplorare fattori di rischio e protezione nell'esperienza adottiva in un campione di 30 bambini precedentemente istituzionalizzati, attraverso l'indagine della corrispondenza tra attaccamento della madre e del bambino e competenze emotive dello stesso. Metodo: trascorsi 6-9 mesi dall'ingresso del minore in famiglia, è stata somministrata alle madri l'Adult Attachment Interview. Trascorsi 12-18 mesi dall'adozione, il pattern di attaccamento del bambino è stato indagato tramite il Manchester Child Attachment Story Task; dopo 2 anni dall'adozione, la comprensione delle emozioni dei bambini è stata indagata con il Test di Comprensione delle Emozioni. Risultati: tra madri e bambini è stata individuata una corrispondenza (sicurezza *vs* insicurezza) del 76% ($k = 0,47$). La comprensione infantile delle emozioni è risultata inferiore nei bambini adottati rispetto ai loro pari normativi ($t = -3,238$, $p \leq 0,005$). Tale risultato non sembra imputabile unicamente alla condizione adottiva in sé, ma si collega alla presenza di attaccamento insicuro ($r_{pb} = 0,46$) e disorganizzato ($r_{pb} = 0,44$). Conclusioni: le rappresentazioni di attaccamento del genitore adottivo materno sono, analogamente a quanto accade nei campioni normativi, un elemento determinante sulla definizione dei Modelli operativi interni dei bambini. Inoltre, un attaccamento sicuro e organizzato nel bambino si associa a una migliore comprensione delle emozioni.

Parole chiave: *adozione tardiva, pattern di attaccamento, comprensione delle emozioni.*

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