

Does family drawing assess attachment representations of late-adopted children? A preliminary report

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Background: Attachment representations of late-adopted children have usually been measured by attachment narratives or observational procedures. Recently an attachment-based coding system for family drawings was developed by attachment researchers and it was used both with clinical and nonclinical samples, but it has never been used with adoptees. **Method:** This study examined the differences between attachment representations of 29 late-adopted children aged 5–7 years ($M = 6.35$, 51.7% girls) and 12 non-adopted peers as assessed by family drawings, controlling for demographic variables and children's cognitive status. The attachment-based coding system of family drawings included three levels: (1) 24 individual markers, (2) eight global rating scales (1–7 points), and (3) four attachment categories (secure, avoidant, resistant, and disorganized). **Results:** Late-adopted children assessed with the family drawings were more insecure on the attachment categories and achieved lower scores on positive global ratings such as the Vitality/Creativity and Family Pride/Happiness scales, higher scores on the Role Reversal scale, and a tendency toward higher scores on the Bizarreness/Dissociation scale. No difference emerged between the two groups regarding the individual markers. **Conclusions:** Family drawing seemed to be a useful tool for classifying attachment representations, and able to capture underlying mental states that it was hard for late-adopted children to express in words.

Key Practitioner Message

- Family drawing with an attachment coding system has revealed a constructive method to assess attachment representations of children from clinical and at-risk groups, and therefore to approach to their inner world, although further studies are required
- Late-adopted children, due to their adverse pre-placement experiences, could have developed insecure and disorganized attachment representations that are considered as a potential risk factor for psychopathologies in later stages
- Family drawing applied to late-adopted children may capture specific and subtle weaknesses – such as low level of investment on self and attachment relationships together with chaotic and disorganized attachment representations – that could be otherwise difficult to express verbally for them and, moreover, that could be useful for planning early support interventions

Keywords: family drawings; adoption; attachment representations; late-adopted children

Introduction

As highlighted by recent reviews (Juffer et al., 2011; Palacios & Brodzinsky, 2010), the number of late-adopted children has increased constantly over the last few decades, and they currently represent a higher percentage of children available for adoption. For example, Report of International Adoption Commission in Italy showed that out of 4022 children adopted in 2011, the large number of them were 3–8 years, with a mean age of 6.1 years.

As Palacios and Brodzinsky reported in their seminal review on adoption research (2010), from the large number of studies focused on differences on the psychological adjustment of the adoptees compared with their

non-adopted peers, the picture that has emerged slowly is that the vast majority of adopted children are well within the normal range of adjustment, although they are more likely to be referred for mental health services. Moreover, psychological adjustment of adopted children resulted significantly better than their peers living in institutions or with their birth family.

Specifically some meta-analyses on *developmental pathways* of adoptees showed that, on one hand, they did not differ from their non-adopted environmental peers or siblings both in self-esteem (Juffer & van IJzendoorn, 2007) and IQ (Van IJzendoorn, Juffer, & Klein Poelhuis, 2005), although their school performance and language abilities were lagged behind and more learning

problems were recounted. On the other hand, the adoptees showed higher IQ, better school performance and higher levels of self-esteem than their non-adopted siblings or peers who remained in institutional care. Other meta-analyses (Bimmel, Juffer, Van IJzendoorn, & Bakermans-Kranenburg, 2003; Wierzbicki, 1993) examining the adoptees' *psychopathologies*, revealed that they are more likely than their non-adopted peers to manifest both externalizing problems and academic difficulties, but not internalizing problems, although all differences were quite small. However, adopted children were overrepresented in both outpatient and inpatient mental health settings. Overall these results seem to document the positive impact of adoption on the children's cognitive development and psychological adjustment.

Finally, a recent meta-analysis of *attachment* in adopted children (Van den Dries, Juffer, Van IJzendoorn, & Bakermans-Kranenburg, 2009) showed that those who were adopted before 12 months of age were as securely attached as their non-adopted peers, whereas children adopted after their first birthday showed less attachment security than non-adopted children. Moreover, adopted children showed more disorganized attachment than their non-adopted peers, while they were less disorganized compared to institutionalized children.

From the attachment perspective, while early-adopted children placed within their first year of life build their primary attachment with adoptive parents, late-adopted children have often suffered a wide range of negative relational experiences within their family of origin ranging from loss, abandonment, and neglect to physical, psychological, and sexual abuse (Howe, 2006). After being separated from their biological parents, these traumatized children are usually temporarily located with foster families, home-care centers, and institutions or they are often placed in more than one of these, sometimes adding trauma over trauma (Juffer et al., 2011; Steele et al., 2008).

Because of their adverse experiences prior to adoption, late-adopted children often tend to show *insecure attachment* patterns (avoidant or resistant), characterized by their caregivers' representation as rejecting and/or unpredictable, self-representation as incompetent and unworthy, and representation of attachment relationships as unsatisfying and source of anxiety. When children are exposed to very severe pre-adoption experiences (serious maltreatment, early institutionalization, etc.), they may display *disorganized attachment* patterns characterized by their caregivers' representation as frightened and/or frightening, self-representation as vulnerable and helpless, and representation of attachment relationships as frightening and source of fear (Vorria et al., 2006).

As Bowlby (1991) suggested, although attachment representations are resistant to change in the context of a stable environment, they may be modified by the changed nature of the caretaking environment. According to this line, adoption represents a "quasi-natural experiment" (Van den Dries et al., 2009), which has a powerful impact on the lives of traumatized children. Indeed, new attachments to adoptive parents offer the children the opportunity "to earn" secure attachment patterns (Pace, Zavattini, & D'Alessio, 2012; Steele et al., 2008), charac-

terized by their "new" caregivers' representation as available and responsive, self-representation as competent and lovable, and their representation of attachment relationship as satisfying and trustworthy. These earned secure attachment patterns are considered relevant for well-being in adolescence (Koh & Rueter, 2011).

From both a clinical and research perspective, assessing the attachment patterns of late-adopted children during the first phase after their placement could help to "open a window" (Steele et al., 2008) into their inner world, permitting the identification of specific risk and protective dimensions that could prove useful in beginning early preventative interventions.

Methodologically speaking, the assessment of the attachment representations of adopted preschool and school age children have mainly utilized both observational/behavioral measures – separation/reunion procedure (Pace & Zavattini, 2011) and attachment Q-set (Verissimo & Salvaterra, 2006) – and, more frequently, narrative tasks (Barone & Lionetti, 2011; Roman, Palacios, Moreno, & Lopez, 2012; Steele et al., 2008).

In recent years, based on the pioneering work of Kaplan and Main (1986), family drawings, usually considered by clinicians to be a good tool for exploring children's mental representations of their family (Corman, 1967; Tambelli & Zavattini, 1998), have started to be considered also be a fruitful way of capturing children's attachment representations. In this sense, family drawing could be considered a "narrative construction" within the processing of autobiographical memory, to which both the past experiences of interactions with attachment figures and the current internal models regulating emotions in the relevant relationships are able to contribute (De Coro, Tambelli, & Cundari, 2008).

A coding system based on attachment theory has been developed by researchers including the following three levels of coding: 24 specific features of drawings (Kaplan & Main, 1986), eight global rating scales ranging from point 1 to 7 (Fury, 1996), and four overall categorizations (secure, avoidant, resistant, and disorganized).

The family drawing with the attachment coding system has already been used, providing interesting results, both with a cross-cultural sample (Behrens & Kaplan, 2011) and clinical samples, such as high risk racially mixed children (Fury, Carlson & Sroufe, 1997), maltreated children (Shiakou, 2011), children with ADHD (Clarke, Ungerer, Chahoud, Johnson, & Stiefel, 2002), children exposed to marital/family problems (Leon & Rudy, 2005), and children of depressed mothers (Fihrer & McMahon, 2009).

To our knowledge, family drawing with the attachment coding system has never been used to assess the attachment representations of late-adopted children, although we expected that it could be particularly useful with this clinical group. Because late-adopted children often have impaired verbal skills, the nonverbal nature of family drawing could make them free to express emotions and attitudes that are otherwise difficult to convey.

In this study, we intended to verify whether children adopted at preschool and school age would be more likely to show insecure and disorganized attachment patterns, as measured by family drawings, than their non-adopted peers. We intended to do this by analyzing the three levels of the attachment-based coding

system – specific features, global rating scales, overall classifications – and by controlling for cognitive status and demographic variables.

Method

Participants

This pilot study involved 41 children, including 29 late-adopted children (placed between 4.8 and 7.2 years old) and 12 non-adopted (biological) children.

Eligible families were required to have two parents living together as families, children aged between 5 and 7 years, no special needs children, be living in urban contexts in the center of Italy, and belonging to the middle class.

Families with adopted children were recruited either from the National Health Services that selected adoptive parents and evaluated the families’ adjustment post adoption or from Agencies for International Adoption. Families with biological children were recruited through schools. Participation in this pilot study was voluntary. Ethics committee approval was received from Sapienza University of Rome, the institution in which the data of the research were collected.

At the time of assessment, late-adopted children were aged from 5.4 to 7.8 years ($M = 6.35, SD = 1.07$) and they had been living with their adoptive parents from 7 to 8.5 months ($M = 7.62, SD = 0.70$), 51.7% of the late-adopted children were girls, 82.8% were internationally adopted (of these, 50% from South America, 29.2% from Eastern Europe, 12.5% from Asia, 8.3% from Africa).

Their pre-adoption histories were characterized by multiple difficulties in their family of origin, including serious neglect, abuse, maltreatment, parental psychiatric problems, alcoholism, and psycho-social problems. In addition, 89.7% of the children had been institutionalized for periods from 7 to 67 months ($M = 28.85, SD = 18.61$) before adoption. Non-adopted children (the control group) did not show any differences from adoptees regarding children’s age at assessment ($M = 6.4, SD = 1.11$), gender (50% girls), and siblings (66.7%). All p values ranged between .49 and 1.00.

This study used data from adoptive mothers (M age = 44.5, $SD = 4.37$); all were married (M years of marriage = 12.5, $SD = 4.21$), with between 8 and 18 years of formal education ($M = 15.65, SD = 2.99$), and they were without psychiatric symptoms. No differences emerged between adoptive and non-adoptive mothers regarding years of marriage (Mann–Whitney $U = 92.000, p = .74,$

ns) and years of education (Mann–Whitney $U = 81.000, p = .22, ns$).

Measures

Children’s attachment representations. Family Drawing (FD): To capture representations of attachment to mothers during early middle childhood, the FD was administered following the procedures described by Kaplan and Main (1986) and Fury et al. (1997). First, an 8.5 × 11 cm piece of white paper was placed horizontally in front of the child, along with a set of eight colored markers (Crayola originals no. 7908) which were presented in a standard order. The child was then asked to draw a picture of his/her family. To make the task as open-ended as possible, no further direction was provided. When the drawing was completed, the researcher asked the child to identify all the people in the picture and explain their relationship with the child.

Each drawing was coded in three ways. The *first* coding system described 24 specific signs of drawings (individual “markers”) that would be associated with different types of insecurity of the child’s representation of attachment to mother (see Table 1).

The *second* approach utilized a series of eight global rating scales developed by Fury (1996) to assign a numerical rating to the overall pattern of drawing features by integrating the specified markers with a theoretical knowledge regarding attachment relationships. The eight global rating scales are defined as follows: (1) *Vitality/Creativity* was the emotional investment in the drawing, based on embellishment, detail, and creativity; (2) *Family Pride/Happiness* captured the child’s sense of belonging, and happiness in the family group; (3) *Vulnerability* was reflected in size distortions, the placing of figures on the page, and the exaggeration of soft body parts; (4) *Emotional Distance/Isolation*, reflecting loneliness, was indicated by disguised expressions of anger, neutral or negative affect, and distance between mother and child; (5) *Tension/Anger* was inferred from figures that appeared constricted, closed, lacking in color or detail, careless in appearance, or scribbled/crossed out; (6) *Role Reversal* was inferred from the relative sizes or roles of the drawing figures; (7) *Bizarreness/Dissociation* was typically seen in an underlying disorganization reflected in unusual signs, symbols, or fantasy themes; (8) *Global Pathology* provided a measure of the overall degree of negativity reflected in global organization, completeness of figures, use of color, detail, affect, and background scenes (Fury et al., 1997). Ratings ranged from 1 (*extremely low*) to 7 (*extremely high*).

Table 1. First coding: checklist of 24 signs for insecure family drawings

Predicted avoidant markers	Predicted resistant markers	Predicted insecure markers	Predicted disorganized markers
Child positioned far apart from mother	Crowded or overlapping figures	Lack of background detail	False starts
Omission of mother (or child)	Figures separated by barriers	Figures not grounded (floating on page)	Scrunched figures
Lack of individuation of family members	Unusually large figures	Mother not feminized	Unusual signs, symbols, or scene
Arms downward, close to body or missing	Unusually small figures	Males and females undifferentiated by gender	
Exaggerated heads	Figures on the corner of the page	Neutral/negative facial affect	
Lack of color	Exaggeration of hands/arms soft	Incomplete figures	
Disguised family member	Exaggeration of body parts	Lack of background detail	
	Exaggeration of facial features		

The *third* coding system assigned each drawing to one of the four attachment classifications – secure, avoidant, resistant, and disorganized – based on both the individual markers and the scores on the global rating scales.

Figure 1 shows an example of a FD considered secure which is characterized both by some individual markers as figures that are grounded and/or centered on the page, placed close together but not overlapping or leaning together, well-completed and individuated, and by high scores on the Vitality/Creativity and Family Pride scales.

With regard to the psychometric properties of the FD, some previous studies have shown interrater reliability scores as follows: for individual markers, Cohen's k ranged from .75 to 1.00 (Fury et al., 1997; Madigan, Ladd, & Goldberg, 2003; Pianta, Longmaid, & Ferguson, 1999), for the eight global rating scales, Pearson's r ranged from .54 to .95 (Fury et al., 1997; Madigan et al., 2003), and for attachment classifications, Cohen's k ranged from .64 to .80 (Behrens & Kaplan, 2011; Madigan et al., 2003; Pianta et al., 1999). Associations between the FD categories and early attachment classifications ranged from $k = .52$ to $.56$ (Fury et al., 1997; Madigan et al., 2003), while the correspondence between the FD categories and maternal attachment states of mind was $k = .33$ (Behrens & Kaplan, 2011). The FD indices, as representations of attachment relations, were not related to child intelligence, child gender, age, and mother's socioeconomic status, all $p < .10$ (Führer & McMahon, 2009).

In this study, reliability assessments were performed on the FD of all children who completed the drawings ($N = 38$); these were coded by two expert coders, familiar with attachment theory, and trained using the manual in the doctoral dissertation sent by Fury to our research group. Both coders were blind to any additional information about the child. Spearman's rho correlations for the eight global scales ranged from .41 ($p < .01$) for Emotional Distance/Isolation scale to .85 ($p < .001$) for Family Pride/Happiness. Inter-coder agreement was 71.1% ($k = .60$, $p < .001$) for the four-way classifications (secure, avoidant, resistant and disorganized) and 92.1% ($k = .77$, $p < .001$) for secure versus insecure categories (avoidant, resistant, and disorganized).

Children's cognitive status. To check the impact of children's cognitive skills on their attachment representations, we administered: (1) The *Leiter International*



Figure 1. Example of family drawing classified as secure

Performance Scale-revised (Roid & Miller, 1997), a test to measure nonverbal IQ, highly correlated with the total IQ (.85), performance IQ (.85) and verbal IQ (between .77 and .80) scores of the Wechsler Intelligence Scale for Children-III (WISC-III) (2) the *Peabody Picture Vocabulary Test-Revised* (PPVT-R; Dunn & Dunn, 1981; Stella, Pizzoli, & Tressoldi, 2000), a vocabulary test designed to measure the receptiveness of children's language skills for standard language, highly correlated with the verbal IQ of the WISC-III (.82-.92).

Demographic data. All mothers completed a sheet the purpose of which was to collect demographic data about their families and children's pre-adoption histories (mothers' age, maternal level of education, children's age at assessment, children's age at adoption, institutionalization, living with family of origin, etc.).

Procedure. All parents provided informed consent for participation in the research on the basis of the rights and restrictions set out in Law 675/96: Privacy of the person and other aspects relating to the handling of personal data. The data were collected during an assessment that took place in the University's laboratory and the session was completely video-recorded. Children were individually interviewed by trained research assistants, while their mothers completed the demographic data sheets.

Data analyses. The results were analyzed using the Statistical Package for the Social Science (SPSS Statistics for Windows, Version 19.0; IBM Corp., Armonk, NY). The data analysis was carried out by categorizing children into secure and insecure (avoidant, resistant, and disorganized) groups. Given the small number of the participants, our data were analyzed using non-parametric methods (e.g., Mann-Whitney U -test, Spearman's rho, Fisher's Exact test) that are appropriate for testing statistically small samples, such as in this pilot study, because they do not require the population from which the sample is taken to be assumed to be normal (Siegel & Castellan, 1988). The level of significance for all analyses was $p < .05$.

Results

Attachment classifications by the FD, descriptive variables and children's cognitive status

Some authors (Pianta et al., 1999) have suggested that when examining family drawings, a range of confounding factors must be taken into account, including child intelligence, child gender, and so on. Therefore, we tested whether secure/insecure attachment classifications measured by FD were related to the following potential confounding variables: child age at assessment, child gender, presence/absence of siblings, non-verbal IQ ($M = 92.50$, $SD = 17.91$), receptive language skills ($M = 88.42$, $SD = 14.23$), type of adoption (domestic vs. international), length of institutionalization, children's country of origin, and maternal years of education. None of these descriptive variables were significantly related to the dependent variable (child FD) and all p values were between .11 and 1.00, thus in this study no justification was found for including these factors as covariates.

Between group comparisons on attachment representations assessed by Family Drawing (FD)
 FD: Attachment-based individual markers: Regarding the FD individual markers developed by Kaplan and Main (1986), no significant differences emerged between adopted and biological children (see Table 2).

FD: Attachment-based global rating scales: As Table 2 shows, with regard to the FD global ratings the late-adopted children obtained significantly lower scores than biological children on the two “positive scales – Vitality/Creativity and Family Pride/Happiness”. Moreover, the late-adopted group achieved significantly higher scores on the Role Reversal scale than their non-adopted peers. Finally, the adopted group showed a tendency toward higher scores on the Bizarreness/Dissociation scale compared to the control group.

FD: Attachment classifications: The distribution of the four attachment categories measured by the FD of late-adopted children was as follows: 11.1% were classified as secure, 37% avoidant, 11.1% resistant, and 40.7% disorganized. Biological children were classified 45.5% as secure, 18.2% avoidant, 9.1% resistant, and 27.3% disorganized. Overall, 88.9% of the FDs of late-adopted children were classified as insecure (avoidant, resistant, and disorganized) compared with 54.5% of the FDs of their non-adopted peers, and the difference between the results for the two groups was significant (Fisher’s Exact Test, $p = .03$).

Discussion

In this study, we compared the attachment representations of late-adopted and non-adopted children at pre-school and school age using an attachment-based coding system for FD.

First, late-adopted children did not show any difference regarding the *individual markers* from their non-adopted peers. This result confirmed previous studies which highlighted that specific features were not very successful in distinguishing either attachment groups (Fury et al., 1997; Madigan et al., 2003) or clinical groups (Clarke et al., 2002; Shiakou, 2011).

Second, the differences emerged between adopted and biological groups regarding the *global rating scales* could

provide specific information about the “inner world” of late-adopted children, who may still be influenced by dysfunctional relationships in their families of origin. The majority of these children, who are all recently adopted, could approach adoptive family with a low level of investment in self and attachment relationships (low Vitality/Creativity), without any specific conception of how caregivers are supposed to care for their children, and finding difficult to feel a sense of belonging to the new adoptive family (low Family Pride/Happiness). Moreover, many of them could have played a controlling role with their abdicating biological parents (high Role Reversal) or siblings and they could have been exposed to very chaotic and confusing caregiving in their family of origin (tendency to high Bizarreness/Dissociation).

Last, regarding *overall categorization*, we have highlighted that after 7–8 months from placement, the attachment representations of the late-adopted children were significantly more insecure than those of their peers who grew up in their families of origin.

When our results are compared with those of other studies with clinical groups, we can observe some similarities and differences. Among the similarities, we consider that late-adopted children – like children exposed to marital/family problems (Leon & Rudy, 2005) and with ADHD (Clarke et al., 2002) – presented FDs rated higher in Role Reversal. Moreover, they showed a high prevalence of insecure attachment classifications like maltreated children (Shiakou, 2011), children of depressed mothers (Fihrer & McMahon, 2009), and with ADHD (Clarke et al., 2002). Among the differences, we noted that only late-adopted children showed significantly lower scores on Vitality/Creativity scale than the controls. None of the other clinical groups presented this result (Clarke et al., 2002; Leon & Rudy, 2005), suggesting that emotional investment could represent a specific weakness *only* for late-adopted children. In addition, this pilot study revealed both a high percentage of avoidant classifications (37%) and disorganized ones (40.7%), while a study of maltreated children found only a dominance of avoidant classifications of FDs (Shiakou, 2011).

The prevalence of disorganized classifications in FD does not deviate from the findings of other studies that

Table 2. Individual markers and global ratings according to the FD

FD	Late-adopted children		Non-Adopted children		Test statistic	
	M	(SD)	M	(SD)	Mann-Whitney U	p value
Individual markers						
Avoidant markers	1.43	1.07	1.00	.45	119.000	.110
Resistant markers	1.86	1.20	1.95	.93	153.500	.431
Insecure markers	2.41	1.46	1.91	1.64	123.500	.140
Disorganized markers	1.25	.96	.86	.90	121.000	.122
Global ratings						
Vitality/Creativity	4.03	1.83	5.50	1.28	68.500	.008
Family pride/Happiness	2.80	1.70	4.05	2.18	89.000	.047
Vulnerability	4.75	1.38	4.23	1.92	121.000	.290
Emotional distance/Isolation	4.48	1.16	4.45	1.62	137.500	.503
Tension/Anger	4.79	1.48	4.00	2.12	106.500	.146
Role reversal	3.67	.88	2.95	1.06	88.500	.039
Bizarreness/Dissociation	4.06	1.98	3.25	2.26	93.500	.066
Global pathology	4.36	1.62	3.77	2.08	110.000	.176

have indicated that the proportion of disorganized classifications in late-adopted samples was from 35% to 37%, assessed by an attachment completion story task. (Barone & Lionetti, 2011; Pace et al., 2012). It could be a consequence of children's pre-adoption maladaptive experiences that negatively influence attachment representations in a disordered and confused manner during the first phase of adoption. We suggest that this result deserves specific attention because disorganized attachments have been associated with developmental, adjustment, and behavioral problems, although they cannot be matched to specific psychopathologies. Indeed, some authors have suggested that a general sense of lack of confidence in relationships may be more evident in adopted children (Gagnon-Oosterwaal et al., 2012).

On a clinical level the children's FD could be used as a projective assessment tool that offers the possibility of a symbolic interpretation of the attachment figures, such as photographs and letters (Behrens & Kaplan, 2011), without requiring linguistic mediation. FD could permit an understanding of the different cultural representations of the "sense of a family" – for example, it is important for international adoption – but it may also help to discriminate between a "realistic" portrait of "that family" (we mean the adoptive family) and the "construction" of "an inner family", which is an expression of fantasy (Tambelli & Zavattini, 1998). These aspects are particularly important for late-adopted children who could have in mind both the past experiences of interactions with biological parents and the current internal models regulating emotions in adoptive family.

We would also highlight that the FD could be considered an "open window" on the child's inner world, connected to the anxieties and wishes for the interpersonal closeness (Mikulincer, Shaver, & Avihou-Kanza, 2011). If we consider both the individual markers and the global scales as a unit, FD could be seen as a plot that offers – to late-adopted children and their adoptive parents – a possibility to talk about their anxieties and emotions that are otherwise difficult to convey. Thus, FD could not only be used as tool to support the capacity of *expressing* the inner grief but also as an occasion for children and parents to *share* a representation of the family and their bonds.

To achieve a better understanding, we present two examples of FDs, one classified as *insecure-avoidant* (Figure 2) and one as *insecure-disorganized* (Figure 3).

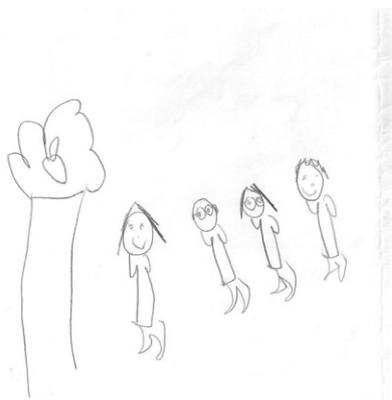


Figure 2. Example of family drawing classified as insecure-avoidant



Figure 3. Example of family drawing classified as insecure-disorganized

The *insecure-avoidant* FD was characterized by feature figures that are incomplete, poorly differentiated, rigid, and uncolored and by scores on the Emotional Distance/Isolation and Tension/Anger scales that were moderate to high, whereas scores on the Vitality/Creativity and Pride/Happiness scales were low, suggesting an overall impression of emotional indifference and coldness.

The *insecure-disorganized* FD was characterized by feature figures that are scrunched, confused, floating on the page, and accompanied by unusual signs and symbols and by scores on the Vitality/Creativity and Pride/Happiness scales that were moderate to low, whereas the scores on the Bizarreness/Dissociation scale were high, suggesting an overall impression of chaos, confusion, and anxiety.

Conclusions

In conclusion, from a clinical perspective examining attachment representations of late-adopted children using FDs could be useful. Specifically, this approach could offer relevant indicators for identifying specific areas of fragility that children cannot convey through verbal communication. For example, a low sense of belonging to the adoptive family, which could be directly addressed in post adoption interventions to enhance adoptive parenting (Rushton, Monck, Upright, & Davidson, 2006; Sharac, McCrone, Rushton, & Monck, 2011) and prevent the crystallization of risk factors in the children's behavioral and social development.

Limitations

A large number of limitations in the current pilot study must be reported. First, the sample size is small and the late-adopted group is heterogeneous. Second, the children were assessed by the FD only with respect to their mothers. Third, this study did not include either concurrent measures of children's attachment (story completion task, separation-reunion procedure), or other potentially important assessments as attachment representations of adoptive parents (Castellano, Velotti, Crowell, & Zavattini, 2013), or a longitudinal follow-up. Fourth, our comparison group consisted only of non-adopted children, without a comparison group of early-adopted children – more difficult to recruit because their

family name were hidden by the Juvenile Court – that could be very interesting for confirming or not our speculations on the FD’ clinical applications. All these aspects deserve to be examined and controlled in future studies.

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Notes

¹Two late-adopted children and one non-adopted child refused to complete the FD.

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