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## ATTACHMENT AMONG ADOPTIVE FAMILIES:TWO EMPIRICAL STUDIES IN AN INTERNATIONAL CONTEXT

Casonato Marta

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Università degli Studi di Torino  
Scuola di Dottorato in Scienze Umane  
(indirizzo Psicologia dello Sviluppo e  
dell' Educazione)  
XXIV Ciclo



Faculté de Sciences Sociales et  
Politiques

**ATTACHMENT AMONG ADOPTIVE FAMILIES:  
TWO EMPIRICAL STUDIES IN AN INTERNATIONAL CONTEXT**

Doctoral Thesis presented to the

University of Torino (IT),  
Department of Psychology

in co-tutorship with the

University of Lausanne (CH),  
Faculty of Social and Political Sciences

to obtain the degree of Doctor of Philosophy in Psychology

by

**Marta Casonato**

Supervisors:

Prof. Paola Fausta Maria Molina  
Prof. Blaise Pierrehumbert  
Prof. Pascal Roman

Torino, 2013



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Faculté des sciences  
sociales et politiques

### IMPRIMATUR

Vu l'accord de cotutelle conclu entre l'Université de Lausanne et l'Università degli Studi di Torino, le Conseil de la Faculté des sciences sociales et politiques de l'Université de Lausanne, sur proposition d'un jury formé des professeurs

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- Daniela CONVERSO, Professeure à l'Università degli Studi di Torino
- Christiane MORO, Professeure à l'Université de Lausanne

autorise, sans se prononcer sur les opinions de la candidate, l'impression de la thèse de Madame Marta CASONATO, intitulée :

**« Attachment among adoptive families : two empiried studies in international context ».**

Le Doyen de la Faculté  
Professeur Fabien Ohl

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# ABSTRACT

## ENGLISH

The present dissertation analyzed the construct of attachment at different time points, specifically focusing on two phases of adoptive family life that have so far received little attention from investigators.

Study 1 focused on the first months of adoption, and analyzed the development of the attachment relationship to new caregivers. The sample was composed of a small but homogeneous group (n=6) of Korean-born children, adopted by Italian parents. The Parent Attachment Diary (Dozier & Stovall, 1997) was utilized to assess the child's attachment behavior. We assessed these behavior for the first 3 months after placement into adoption. Results showed a double variability of attachment behavior: within subjects during the 3-months, and between subjects, with just half of the children developing a stable pattern of attachment. In order to test the growth trajectories of attachment behavior, Hierarchical Linear Models (Bryk & Raudenbush, 1992) were also applied, but no significant population trend was identified.

Study 2 analyzed attachment among adoptees during the sensitive period of adolescence. Data was derived from an international collection (n= 104, from Belgium Italy, and Romania) of semi-structured clinical interviews (with adolescents and with their adoptive parents), as well as from questionnaires. The purpose of this study was to detect the role played by risk and protective factors on the adoptee's behavioral and socio-emotional outcomes. In addition, we tested the possible interactions between the different attachment representations within the adoptive family. Results showed that pre-adoptive risk predicted the adolescent's adjustment; however, parental representations constituted an important moderator of this relationship. Moreover, the adolescent's security of attachment partially mediated the relationship between age at placement and later behavioral problems.

In conclusion, the two present attachment studies highlighted the notable rate of change of attachment behavior over time, which showed its underlying plasticity, and thus the possible reparatory value of the adoption practice. Since parents have

been proven to play an important role, especially in adolescence, the post-adoption support acquires even more importance in order to help parents promoting a positive and stable relational environment over time.

## FRANÇAIS

L'objectif de cette thèse est de décrire la formation des relations d'attachement chez les enfants et les adolescents adoptés, lors de deux phases particulières de la vie de la famille adoptive, qui ont été relativement peu étudiées.

L'Étude 1 analyse les premiers mois après l'adoption, avec le but de comprendre si, et comment, une relation d'attachement aux nouveaux parents se développe. L'échantillon est composé d'un petit groupe ( $n = 6$ ) d'enfants provenant de Corée du Sud, adoptés par des parents Italiens. A l'aide du *Parent Attachment Diary* (Dozier & Stovall, 1997), des observations des comportements d'attachement de l'enfant ont été recueillies chaque jour au cours des 3 premiers mois après l'arrivée. Les résultats montrent une double variabilité des comportements d'attachement: au niveau inter- et intra-individuel ; au premier de ces niveaux, seulement la moitié des enfants parvient à développer un pattern stable d'attachement ; au niveau intra-individuel, les trajectoires de développement des comportements d'attachement ont été testées à l'aide de Modèles Linéaires Hiérarchiques (Bryk et Raudenbush, 1992), mais aucune tendance significative n'a pu être révélée.

L'Étude 2 vise à analyser l'attachement chez des enfants adoptés dans l'enfance, lors de la période particulièrement sensible de l'adolescence. Les données sont issues d'une base de données internationale ( $n = 104$ , Belgique, Italie et Roumanie), composée d'entretiens cliniques semi-structurés (auprès de l'adolescents et des ses parents adoptifs), ainsi que de questionnaires. Les analyses statistiques visent à détecter la présence de facteurs de risque et de protection relativement à l'attachement et aux problèmes de comportement de l'enfant adopté. En outre, la présence d'interactions entre les représentations d'attachement des membres de la famille adoptive est évaluée.

Les résultats montrent que les risques associés à la période pré-adoptive prédisent la qualité du bien-être de l'adolescent, mais les représentations parentales constituent un modérateur important de cette relation. En outre, la sécurité de l'attachement du jeune

adopté médiatise partiellement la relation entre l'âge au moment du placement et les problèmes de comportement lors de l'adolescence.

En conclusion, à l'aide de multiples données relatives à l'attachement, ces deux études soulignent son évolution notable au fil du temps, ce qui sous-tend la présence d'une certaine plasticité, et donc la possible valeur réparatrice de la pratique de l'adoption. Comme les parents semblent jouer un rôle important de ce point de vue, surtout à l'adolescence, cela renforce la notion d'un soutien post-adoption, en vue d'aider les parents à la promotion d'un environnement relationnel favorable et stable.

## ITALIANO

Il presente lavoro è volto ad analizzare l'attaccamento durante le due fasi della vita della famiglia adottiva che meno sono state indagate dalla letteratura.

Lo Studio 1 aveva l'obiettivo di analizzare i primi mesi che seguono il collocamento del bambino, al fine di capire se e come una relazione di attaccamento verso i nuovi genitori si sviluppa. Il campione è composto da un piccolo gruppo ( $n = 6$ ) di bambini provenienti dalla Corea del Sud e adottati da genitori italiani. Attraverso il *Parent Attachment Diary* (Stovall e Dozier, 1997) sono stati osservati quotidianamente, e per i primi tre mesi, i comportamenti di attaccamento del bambino. I risultati hanno mostrato una duplice variabilità: a livello intraindividuale (nell'arco dei 3 mesi), ed interindividuale, poichè solo la metà dei bambini ha sviluppato un pattern stabile di attaccamento. Per verificare le traiettorie di sviluppo di tali comportamenti, sono stati applicati i Modelli Lineari Gerarchici (Bryk & Raudenbush, 1992), che però non hanno stimato una tendenza significativa all'interno della popolazione.

Obiettivo dello Studio 2 è stato quello di esaminare l'attaccamento nelle famiglie i cui figli adottivi si trovavano nella delicata fase adolescenziale. I dati, provenienti da una raccolta internazionale ( $n = 104$ , Belgio, Italia e Romania), erano costituiti da interviste cliniche semi-strutturate (con gli adolescenti e i propri genitori adottivi) e da questionari. Le analisi hanno indagato il ruolo dei fattori di rischio sullo sviluppo socio-emotivo e sugli eventuali problemi comportamentali dei ragazzi. Inoltre, sono state esaminate le possibili interazioni tra le diverse rappresentazioni di attaccamento dei membri della famiglia adottiva. I risultati hanno mostrato che il

rischio pre-adoztivo predice l'adattamento dell'adolescente, sebbene le rappresentazioni genitoriali costituiscano un importante moderatore di questa relazione. Inoltre, la sicurezza dell'attaccamento dell'adolescente media parzialmente la relazione tra età al momento dell'adozione e problemi comportamentali in adolescenza.

In conclusione, attraverso i molteplici dati relativi all'attaccamento, i due studi ne hanno evidenziato il cambiamento nel tempo, a riprova della sua plasticità, e pertanto sottolineano il possibile valore riparativo dell'adozione. Dal momento che i genitori svolgono un ruolo importante, soprattutto in adolescenza, il supporto nel post-adozione diventa centrale per aiutarli a promuovere un ambiente relazionale favorevole e stabile nel tempo.

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# INTRODUCTION

With the rise in family diversity over the past few decades, interest in nontraditional families' life has increased significantly among social science researchers. Adoption constitutes a worldwide deeply rooted practice; in the last fifty years over one million children have been adopted around the world (Selman, 2009). My personal interest in this practice derives from its cultural complexity and its potential reparatory value, both for the child and for the adults: on one hand we find a child coming from abandonment or distressing experiences while, on the other hand there is a couple longing to become parents.

Nevertheless, this romantic view of the adoption phenomenon underestimates some critical aspects lying behind this practice. Even if ethical and legal issues won't be considered in the present dissertation, it is proper to note that, at a macro level, international adoption has represented for many years a form of "black market" of children. In order to prevent this unconceivable type of abuse, nowadays the international laws carefully protect the rights of the child. Nevertheless, even when the adoptive procedure carefully follows the legal requirements, and the child's condition of abandonment is proven, international adoption often moves inside a Western socio-political framework that tends to satisfy the adult's need to become parent first, and just after that it is aimed to assure the child's need to grow up in a family (Roman, 2001).

Leaving aside these macro-considerations about the adoption phenomenon, it should be nonetheless considered the significance of the risk factors for later development shared by adoptees. The pre-adoption background is often marked by early stress, like the abandonment by the biological family, early institutional life, multiple separations from primary caregivers, and sometimes even maltreatment and abuse. This multifaceted background, which in inter-country adoption is complicated by cultural and ethnic diversities, constitutes a challenge to the success of adoption. This same situation, from the point of view of researchers, necessitates taking into account a complexity of relational aspects: the psychology

of adoption must control and deepen all the aspects underlying the development of close relationships among the adoptive family members.

In the last fifty years, research has provided a great contribution to the understanding of this practice. However, the number of adopted children continues to increase while trends in the characteristics of adoption change (e.g. shifts in countries of origin in international adoption, the allowance of single parent adoptions, etc.), and many issues remain unresolved; therefore, studies considering and treating this complexity are still needed.

The urgency for innovative research contributions resides not only on a theoretical level (for a better understanding of developmental issues such as plasticity and critical periods), but also on the ongoing social debates: public policies need to be better addressed on the base of methodological and theoretical observations (Serbin, 1997).

The attachment theory provides an appropriate framework to interpret adoption, as a phenomenon always implying separations, loss, and the development of attachment to new parents. Bowlby's paradigm not only helps us understand the role of precocious experiences, but at the same time it conceives that new relational experiences can challenge the child's expectations and beliefs, supporting the idea that adoption can be a new and fertile opportunity for abandoned children.

While many studies have analyzed the adoptee's adjustment, identifying its pre-adoptive correlates, a number of investigators have pointed out that there is a great need in the field to understand attachment relationships and representations within the adoptive families. In order to do that, we need to test complex models considering the possible predictors of attachment; this will allow us to understand of how this bond develops in these peculiar situations. Moreover, it will be important to test the effect of attachment representations on the later adoptee's adjustment. In all these perspectives, the contribution of the adoptive parents' representations is fundamental.

The present dissertation begins with a discussion of the adoption practice's characteristics and peculiarities, reporting data about the adoption phenomenon in Italy and in Switzerland; the effects of pre-adoption experiences on the adoptees'

adjustment will also be reported. Lastly, the first chapter will include a brief presentation and discussion of the attachment paradigm, the theoretical framework chosen as reference for the present work.

The following chapter will review the specific literature analyzing the construct of attachment in adoptive families: how attachment has been evaluated, the distribution of its patterns among adoptees (and its comparison with children living in institutions, and with non-adopted peers), the factors found to affect attachment among adoptees (especially referred to pre-adoption experiences), and how attachment behavior and representations change over time. After this literature review, which will present some of the most important findings in the field, the present study rationale will be presented, anticipating the objectives of the two studies that constituted my dissertation research. They were both aimed at deepening the knowledge about attachment during two specific phases of the adoptive family life, which have been less considered in the literature: the first one concerns the initial interactions between child and parents just after the placement, while the second goes one step further, focusing on the critical period of the adoptee's life which is adolescence.

Chapter 3 will gather information relating to the first study, which focuses on the first months of the adoptive family's creation. Aim of Study 1 is to investigate how a homogeneous sample of Korean-born internationally adopted children developed an attachment bond toward the new primary caregivers.

Chapter 4 will move forward in the adoptee's development, analyzing the critical period of adolescence, which is at the center of Study 2. The latter, inserted in an international research network, was aimed at investigating the possible interactions between adopted adolescents' behavioral problems and the representations of attachment among the adoptive family members.

In the conclusion's chapter, implications for practice and future research will be discussed.



# 1. BACKGROUND AND SIGNIFICANCE

In the present section the peculiarities of the adoption phenomenon will be illustrated, resuming what years of research literature have shown with respect to the effect of pre-adoption experiences on the later adoptee's adjustment. Afterward, the core concepts of the Bowlby's attachment paradigm will be introduced and discussed.

## **1.1. Current adoptive practice**

### **1.1.1. Direction in adoption research: past, present and future**

Adoption is not a recent phenomenon: on the contrary this practice is deep-rooted in our past. Historical and mythological accounts are full of examples of minors adopted by non biologically related parents, and they can be found in practically all cultures, even in non-human primates (M. H. van Ijzendoorn & Juffer, 2006). Nonetheless, the interest shown by researchers in this topic is a much more recent phenomenon: after the Second World War, adoption began to be considered a child welfare practice. At the same time, social scientists and clinicians began to show much interest on this topic. The two main theoretical fields implicated in adoption research have been developmental psychology and psychopathology, and the social work and child welfare (Palacios & Brodzinsky, 2010).

Psychologists have historically approached the field of adoption in many different ways over the years. Palacios and Brodzinsky (2010), in their comprehensive review of the research in the adoption field, suggest that three



different waves of studies can be identified<sup>1</sup>. The first one (began in the late Fifties and continued until the end of the Nineties) was focused on the psychological problems showed by adoptees, and through a comparison methodology between adoptive and non-adoptive peers, it was aimed at understanding if and why this population was overrepresented in clinical settings.

As a second wave of research, the following ten years of adoption research focused on the development of international adoption, which raised the attention on the impact of early institutional life on children's development. During this stage researchers investigated the early conditions of internationally adopted children in order to analyze later in life outcomes following early adversities.

The last and more recent wave of research to the adoption phenomenon has focused on the process of adoption (both for individuals and families), and on factors underlying in the adoptive families, in order to explain what are the protective factors playing a role on the adjustment process (Palacios, 2011).

Lisa Serbin, a researcher in the field of psychological who is also an adoptive mother, highlighted the implications of research on international adoption not only on a theoretical level (addressing the issue of plasticity and critical periods in development), but also for social policies (early intervention programs, support to families before, during, and post-adoption) (Serbin, 1997). The research community appears to have an obligation to contribute its observations, based on research and theory, to ongoing debates on public policy.

The present dissertation investigated the adoption issue accounting for the dynamicity of the adoptive family's life, and therefore considering and analyzing adoption and the relationships within the adoptive family as ongoing processes. Results will help a reflection on the possible intervenient variables and therefore will allow a better definition of risk and protective factors.

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<sup>1</sup> It is important to underline that the aims characterizing previous waves of research do not disappear when a new wave begins; they just end their predominance.

### 1.1.2. The international adoption phenomenon

Selman (as cited in Palacios & Brodzinsky, 2010) estimated that about one million children have been adopted around the world, from World War II to 2009. From an historical point of view, inter-country adoption began as a means of providing orphaned and abandoned children from war torn countries with safe, nurturing, and permanent homes. In the past decades the countries of origin, number and characteristics of children have constantly changed over time due to economic, political, social, and cultural factors.

In adoptive proceedings, an individual or couple becomes the legal and permanent parent of a child. International adoption (also known as inter-country or transnational adoption), involves children who were born in a different country than that of the parents. This is different from interracial adoption, which can be delivered within the same nation and is characterized by parents of different racial or ethnic backgrounds from that of the adopted child. Prospective adoptive parents must meet two different pools of legal requirements: those of their country of residence, and those of the country whose nationality the child holds.

Nowadays the inter-country adoption's scenario is very complex. This practice has been the focus of the Hague Convention (1993), a worldwide agreement subscribed by 89 countries (both receiving and origin ones), whose objective was to safeguard inter-country adoptions, establishing international standards of practices. In order to preserve children from "black market adoptions" and to guarantee their need to be raised in their own familiar and cultural context, the Hague Convention requires the following of the so-called *principle of subsidiarity*. According to this regulation, children suitable for international adoption are only those who couldn't be raised by kin or in domestic placement. The Italian adoption law (184/1983, art. 39ter, f) went further, imposing every accredited body for international adoption (the organisms to whom the prospective adoptive parents must refer, in order to complete the adoption procedure abroad) to "participate in activities promoting the rights of children, preferably through development aid projects [...] implementing the principle of subsidiarity in inter-country adoption in the children's countries of origin". This means that the activity

of Italian organism operating in international adoption should go in the direction of the abandonment's prevention and of the local social services' improvement.

The application of the principle of subsidiarity played a role on the characteristics of children suitable for adoption, involving kids manifesting characteristics that delayed or impeded their adoptive placement within their own country. These characteristics include older age (usually over the age of 4 years), serious emotional and behavioral problems, developmental disabilities and severe medical conditions, minority group status, and sibling group membership (D. Brodzinsky & Pinderhughes, 2002).

Even when the adoptees are not carriers of special needs, they nonetheless share a complex background marked by early stress, like the abandonment by the biological family, multiple separations from primary caregivers, and sometimes even maltreatment and abuse. All these factors represent a potential risk for the subsequent socio-emotional development and, in addition to them, the large majority of children suitable for international adoption have lived in institutions, which usually means a cognitive and emotional under-stimulation that many times results in marked effects in all areas of early development.

This range of developmental early stress may have led these children develop a repertoire of behavioral and psychological strategies that helped them survive difficult and troubling caregiving experiences. Hence, adoptive parents not only have to accept the child's past and difficulties, in addition to ethnic and cultural differences, but they also need to be able to understand and face the child's challenging behavior (Howe, 2006). Moreover, this form of parenting typically requires to face very specific issues from the first days together (with the incapacity of communicating in the same language), to the later child development (e.g. the helping the child cope with racial and ethnic issues) (D. Brodzinsky & Pinderhughes, 2002).

This multifaceted background constitutes a challenge to the success of international adoption. At the same time, from a research point of view, inter-country adoption questions the investigation of the complexity lying behind the development of close relationships among the adoptive family members. Studies considering and treating this complexity are needed.

### **1.1.2.1. Inter-country adoptive parents**

Parents referring to inter-country adoption share particular characteristics that will be synthetically highlighted in the present section.

First of all, at the time of the child's arrival in the family, parents are generally older as compared to non-adoptive parents at the birth of their first child (CAI, 2012; Hellerstedt et al., 2008). This may have to do with the widespread experience of infertility that often lays behind the adoptive choice.

Inter-country adoptive parents, on average, have higher education levels and better socio-economic status than non-adoptive parents (CAI, 2012; Hollingsworth, 2000). The latter over-representation of higher income individuals among parents of internationally adopted children may reflect the cost of the adoption process, or the adoption agencies' favoritism for specific social groups (Hellerstedt, et al., 2008).

Parental commitment is usually high, as proved by Hellerstedt et al. (2008) in the USA, where adoptive mothers spend more time at home with their infants after adoption than do non-adoptive mothers. A similar higher commitment has been shown even in internationally adoptive fathers, who invested a lot in the building of a psychological closeness with their adoptee (Rosnati & Marta, 1997).

Other specificities of adoptive parents vary among the different countries, because of the legal requirements that every adoptive parent or couple must meet in order to complete an inter-country adoption (e.g. years of marriage, presence of other children, etc.). This type of variables will not be treated here.

### **1.1.2.2. International adoptions in Italy and in Switzerland**

A brief overview will be given with respect to the Italian and Swiss phenomenon in the last five years. These two realities have been chosen in order to situate the international adoption practice within the two countries represented by the present dissertation.

Whereas in Italy only married heterosexual couples can adopt a child, in Switzerland also single people can become adoptive parents. Besides, the process

that leads a parent to become adoptive is quite similar in these two countries: both Italian and Swiss prospective adopters have to make a formal request and meet professionals charged with expressing their judgment regarding the eligibility of a person becoming an adoptive parent.

With respect to inter-country adoptions, whereas in Italy couples suitable for adoption must refer to accredited organizations for the various procedural aspects required by the country of origin, in Switzerland prospective adopters can also follow the procedure abroad independently (usually with the assistance of attorneys). Once the adoption practice has begun, in both countries the entrance of the internationally adopted child is submitted to the verification of the Hague Convention's principles.

International adoption is a massive phenomenon in Italy that in the last five years involved almost 20000 children. In 2011 a total of 4022 children have been adopted in Italy (about 11 children every day), making Italy the second receiving country after the USA<sup>2</sup>. The main reason laying behind these high numbers is the child's age variable: in comparison with other European countries, Italian couples are more available and likely to adopt older children. We can hypothesize that this may have to do with the parent's older age at marriage (and the consequent contraceptive difficulties), but maybe also because of a welcoming Catholic tradition.

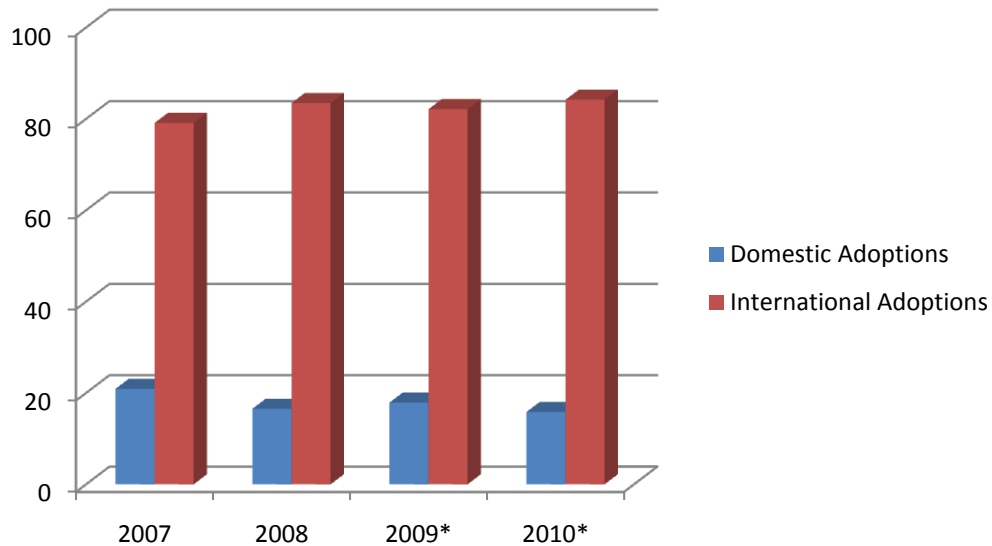
In Italy, the rate of international adoption is much higher than that of domestic adoption (respectively about 85% *versus* 15% of the total number of adoptions (Dipartimento di Giustizia Minorile, 2011) (see Figure 1), meaning that adopting a child from abroad constitutes an important chance for many Italian couples to become parents.

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<sup>2</sup> Nevertheless, it must be noted that the preliminary report regarding data of international adoptions during 2012 highlights a significant decrease (21.7%) of children entering Italy through this practice (2469 children) (CAI, 2013). This decrease could be due to the impact of the economical crisis.

Figure 1

*Proportion of Domestic and International adoptees in Italy (%)*



\* Data from one Regional Juvenile Court (Naples) are ore totally partially missing

Source: Italian Department for Juvenile Justice

With respect to internationally adopted children, their provenance of the is variegated: in 2011 Italian inter-country adoptees came from 57 different countries, with Russia at the first place (19.4% of the total children).

In 2011 the average age was 6.1 years old, in slow but continuous increase if compared to the previous years. Among all the inter-country adopted children, 21.6% of the adoptees entered Italy with a sibling, and 13.4% of them were special needs children<sup>3</sup> (CAI, 2012).

The phenomenon of inter-country adoptions is much narrower in Switzerland<sup>4</sup>, concerning a smaller number of children (less than 1/10 of the Italian

<sup>3</sup> This term assumes different meaning within different countries, but it usually refers to children with one or more of the following characteristics: older age at placement, exposure to neglect and/or abuse, chronic medical problems, mental and/or psychological disturbance (D. Brodzinsky & Pinderhughes, 2002)

<sup>4</sup> Adoption statistics, in Switzerland, also include the legal inclusion in a family of an adult, not just that of minors. Moreover, since 2010 exiled people in Switzerland from more than 12 months are considered as residents. This two aspects brought some difficulties in comparing Italian and Swiss data, because in the latter country, adults coming from abroad and legally accepted by an immigrant relative were calculated as international adoptions. This is why in the present dissertation I

ones). This difference continue to be high even if considering the rate of adoptions per total inhabitants (4.55 *versus* 6.41) (see Table 1).

Table 1

*Number of international adoptions in the last five years*

	2007	2008	2009	2010	2011	Total	Average rate*
Italy	3420	3977	3964	4130	4022	19513	6.41
Switzerland	394	383	323	391	334	1825	4.55

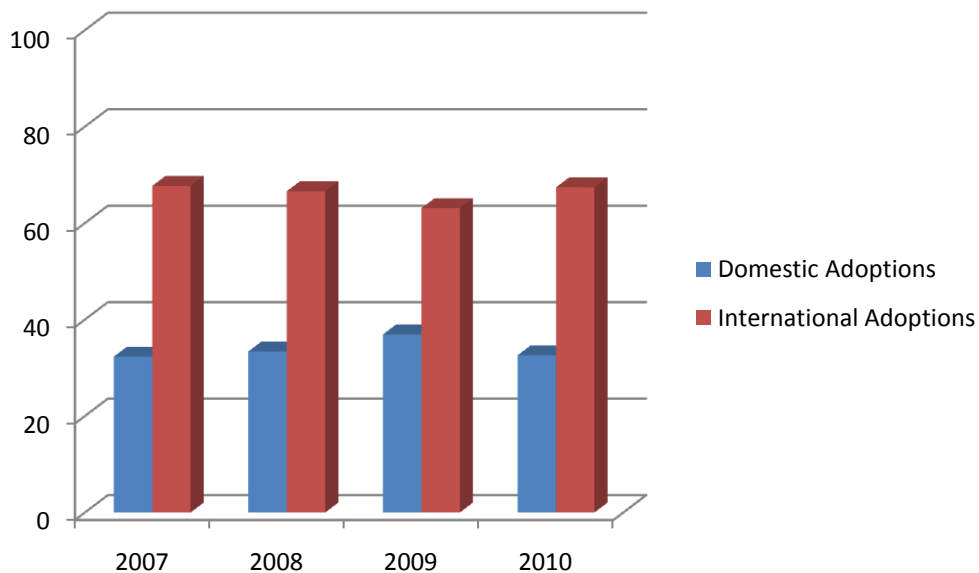
\*number of international adoptions every 1000 inhabitants

Source: CAI, OFS

If compared to domestic adoptions, international adoptions constitutes about the 35% of the total number of adoptions, therefore not showing the supremacy previously underlined for Italy (see Figure 2).

Figure 2

*Proportion of Domestic and International adoptees in Switzerland (%)*



Source: OFS

considered just the minors who, at placement, were younger than 15 years old (297 children over 369 adoptees).

Focusing on international adoptions, the large majority of Swiss adoptees come from Africa (see Table 2).

Table 2

*Comparison of Italian and Swiss international adoptees in 2011: Area of origin (%)*

	Europe	Asia	Africa	America
Italy	44,70	15,30	13,10	26,90
Switzerland	17,90	22,5	40,40	19,20

*Source:* CAI, OFS

On the whole, as shown in Table 3, the most represented age range at arrival is the lowest (0-4) and, differently from Italy, the children are in majority boys (53.6%) (OFS, 2012).

Table 3

*Comparison of Italian and Swiss international adoptees in 2011: age and gender*

	Age (%)				Gender (%)	
	0-4	5-9	≥10	mean	M	F
Italy	41.5	45.2	13.3	6.1	57.5	47.5
Switzerland	67.1	19.1	13.8	4.6	46.4	53.6

*Source:* CAI, OFS

The variety of child's age, provenance, and characteristics makes international adoption a phenomenon implying the development of family relationships across cultural, ethnic, and linguistic boundaries. All members are required to adapt and adjust themselves to a new way of life. The children, however, may have the most striking acclimatization as they experience new sounds, smells, expectations, and interactions with others (Wilson, 2009).

Since Italy holds an important position with respect to the total number of international adoptions, a better comprehension of the dynamics covered by this phenomenon acquires even more importance for its practitioners.



### 1.1.3. Adoption and developmental catch-up

As Juffer and van Ijzendoorn (2009) have underlined, international adoption was born following the World War II, more than 50 years ago. Immediately afterwards, Bowlby wrote his first hypotheses about institutionalization and adoption, suggesting further research in the field in order to support the potentialities of this child welfare practice<sup>5</sup>.

Nowadays, a large number of studies have been published on this topic, allowing us to consider if adoption is an adequate option not only *instead* of institutional care, but also *after* institutional care, in order to minimize the consequences of early neglect and deprivation. In other words, what international adoption means for the child's development? This question was the focus of a meta-analytic review by Juffer and van Ijzendoorn (2009). The answers depend on the type of control group used: when compared with their peers left behind in institutions, the meta-analyses indicated that adopted children showed an impressive catch-up in all areas. The comparison with current peers, however, provided heterogeneous results that will be briefly reported below.

In IQ, in self-esteem (F. Juffer & van IJzendoorn, 2007), and in physical growth (i.e. weight and height) (Judge, 2003), adoptees did not significantly differ from the non-adopted controls. The cognitive recovery seems impressive if we consider that, at placement, adopted children have been reported to show a delay in mental age of 4.53 months for each year before adoption (Palacios, 2011). With respect to physical parameters, weight, above all, showed a fast and complete catch-up during the first two years in the family. Height continued to improve even later, proceeding towards a normalization.

In other fields like academic achievement and behavioral problems, the differences with current peers was significant, but small or moderate (F. Juffer & Van Ijzendoorn, 2009). Psychological development in post-adoption was impressive, but remained significantly correlated to the rate of delay showed at placement (Palacios, 2011): the more they were delayed, the harder the recovery was.

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<sup>5</sup> See paragraph "Origin and core concepts" within the "Theoretical Framework" section for more information

Lastly, in other areas (such as head circumference and socio-emotional development), adoptees seem not able to catch-up, at least not in the first years after adoption (Palacios & Brodzinsky, 2010). For children with a highly compromised development, we must wait until the third or fourth year within the adoptive family to see a slow catch-up.

To conclude, in the previously mentioned areas internationally adopted children show developmental delays at placement, sometimes even marked ones. However, their experience in the adoptive family allows the catch-up of many of these difficulties, but the level of recovery depends not only on the area of development, but also on the level of the initial delay (Palacios, 2011).

The above mentioned recoveries shown by inter-country adoptive children well illustrate the dynamicity of adoption that the present dissertation will try to underline and to account for, while analyzing the adoptees' adjustment.

#### **1.1.4. Behavioral and mental adjustment among adoptees**

From the great corpus of research that began at the end of the Fifties and ended with meta-analytic studies, adopted children and adolescents appear to be at greater risk for adjustment difficulties when compared to non-adopted community-base peers (Palacios & Brodzinsky, 2010).

Research on social adjustment of adopted adolescents has shown contrasting results. This heterogeneity can be due to a range of different factors, first of all the reduced number of participants, often contacted through clinical services. Another factor has to do with the great variability of the phenomenon, that makes difficult to compare the data obtained. Lastly, samples often share a selection bias, so that the participants who took part in the study are not fully representative of the general population of adoptees.

Two important meta-analytic studies have been conducted in the Netherlands, at the Leiden University, in order to account for these dissimilarities and limitations, providing more consistent and accurate results with respect to the adopted adolescents' adjustment. The first meta-analysis was published in 2003 (Bimmel, Juffer, van, & Bakermans-Kranenburg, 2003) on a pool of 10 different

studies, for a total of 2317 inter-country adoptees and 14345 controls. Results showed a greater tendency of adopted adolescents to show behavioral problems: the difference (effect size) between the clinical group and control can, however, be considered small ( $d = 0.08$ ,  $p = 0.02$ ) and seems to be related only to the problems known as “externalizing” (delinquent and aggressive behavior) and not to “internalizing” (such as anxiety, depression, attentive problems). If we consider the great diversity of events experienced by adoptees with respect to their non-adopted peers constituting the control group, the magnitude of this difference is minimal and largely justified by early traumas and separations. Indeed, by removing from the analysis the two studies that included subjects with major pre-adoptive deprivations, the significance of the effect size disappeared.

Another factor possibly impacting on the significance of the effect size is the presence of a minority of subjects belonging to the clinical range, namely those who manifest the highest level of problems. The same conclusion was reached by the authors of another study, conducted on a very large American sample (including 1587 adoptees): the comparison of the distributions of adopted and non-adopted adolescents suggested much greater proportions of adopted adolescents at the extremes of salient outcome variables (B. Miller, Fan, Christensen, Grotevant, & van Dulman, 2000).

Furthermore, epidemiological studies show an overrepresentation of adoptees in mental health services (D. Brodzinsky & Pinderhughes, 2002). Therefore, as the problem becomes more serious, adopted children are much more represented than their peers, suggesting a greater risk to develop mental health problems. However, the same data has been interpreted differently by other authors: adoptive parents would be more likely to contact mental health services, having a lower threshold for referral (Haugaard, 1998; B. Miller, et al., 2000). This parental attitude could derive not only from a trusting relationship with operators, developed during the adoption process, but also from a higher socioeconomic status, and from the concern about their adopted sons, generally labeled as more sensitive and problematic.

This reflection brought the same Dutch research group to conduct another meta-analysis, published two years later (F. Juffer & van Ijzendoorn, 2005), which also included mental health problems, in order to explore the risk of

psychopathology among adoptees. The pool of studies considered was more updated and comprehensive<sup>6</sup>, and also allowed for comparison between domestic and international adoptions. The differences between adopted and non-adopted are mild with respect to behavioral problems, both internalizing and externalizing. On the contrary, adoptees differ significantly from their non-adopted peers with respect to mental health, and the effect size is high ( $d = 0.72$ ,  $p < 0.05$ ): although the rate of problems shown is low, adopted adolescents appear to be more represented in the health services mental, confirming what already emerged from previous studies. In summary, adopted adolescents do not appear to be at greater risk than their peers with respect to behavior disorders, but they are significantly more represented within the clinical tails of the distribution. This seems to be related to deprivations, traumas, and separations experienced before adoption, whose effect is amplified by a lower parental threshold for referral.

#### **1.1.4.1. Adjustment among domestic *versus* inter-country adoptees**

An unpredicted result of the latter meta-analysis (F. Juffer & van Ijzendoorn, 2005), derives from the comparison of domestic and international adoption. The latter, in fact, is generally considered at greater risk due to its higher complexity brought by somatic and cultural differences. Unexpectedly, results showed that young people from a foreign country manifest a lower rate of behavioral and mental health problems ( $d = .37$  for international *versus*  $d = .81$  for domestic adoptees). Given that both practices share similar initial difficulties of the child, the authors attributed the international adoption's advantage to a possible lower genetic risk, and/or to a greater openness in the adoption communication among the families who have adopted abroad. The visible somatic differences between parents and children require to deal with the adoption issue earlier and in a more open way.

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<sup>6</sup> This second meta-analysis included 34 studies analyzing the mental health and 64 the behavioral problems of adoptees. The total number of participants included 25281 adoptees and 80260 non-adopted peers.

### **1.1.4.2. Behavioral adjustment in childhood versus adolescence**

Meta-analyses showed that behavioral difficulties seem to be related to the adoptee's age at assessment (Juffer & van Ijzendoorn, 2005): when compared to early middle childhood, adolescents seem to show lower rates of behavioral problems.

This result, in line with those obtained by Brent Miller and colleagues (B. Miller, et al., 2000) can be interpreted as the effect of a longer period of time spent with the adoptive parents. Indeed, a significant difference was found between adoptees who had spent more or less than 12 years in their family: a longer period of time spent with adoptive parents was related to fewer total ( $d = .05$  vs  $d = .21$ ,  $p < .001$ ) and externalizing ( $d = .07$  vs  $d = .18$ ,  $p = .003$ ) behavioral problems. On the contrary, the number of years since placement did not moderate the rate of internalizing problems (F. Juffer & van Ijzendoorn, 2005).

Therefore, a longer time spent within the new family would neutralize the negative effect of early experiences, increase the sense of belonging, and help the building of a more stable adoptive identity. The latter, as underlined by Grotevant and colleagues, is a complex construct that combines intra-psychic aspects, family membership and socio-cultural meanings of adoption (Grotevant, Dunbar, Kohler, & Lash Esau, 2000).

In the urgency of developing a stable identity, adoptees could show typical adolescence issues before their non-adoptive peers, so that some behavior problems may occur in a different time-scheduling (F. Juffer & van Ijzendoorn, 2005).

### **1.1.4.3. Age at placement moderating later adjustment**

Even though many studies have stressed the importance of age at adoption as a risk factor for later adjustment (Judge, 2003; Verhulst, Althaus, & Versluis-den Bieman, 1990b), both meta-analyses (Bimmel et al., 2003; Juffer & van Ijzendoorn, 2005) indicated no significant differences with respect to this variable, considering as cut-off both 12 and 24 months of age at placement (F. Juffer & van

Ijzendoorn, 2005). This result could be interpreted in agreement with Howe, who stated that the child's age at adoption cannot be considered a risk factor itself, but it should be conceived as the time spent in unfavorable circumstances. Age in itself is not linked to the later rate of behavioral problems, whereas the pre-adoptive experiences (severity, duration, and stability) constitute a risk factor for later adjustment (Howe, 2003).

The relationship between age and pre-adoptive experiences has been recently analyzed by more recent studies. The first of them, conducted by Megan Gunnar and colleagues (Gunnar, van Dulmen, & the International Adoption Project Team, 2007), is remarkable for the width of its sample of almost 2000 adoptees, even if the age range considered is maybe too large (4 to 18 years old) to use the same measures of assessment. Results contrast with those obtained through meta-analyses, showing that, regardless of their institutional history, children adopted after their second birthday had higher rate of behavior problems across different domains.

Similar conclusions were found in a recent study conducted in Canada on 358 internationally adopted adolescents (12-18 years old), whose results showed significant mean differences on 6 among a total 8 types of behavioral problems, especially when confronting early adoptions (before 6 months) with late-adoptions (after 24 months) (Habersaat et al., 2010). Lately, a study conducted with adolescents who were adopted from Russia, showed that the 59.0% of those who were adopted after 18 months scored critically on at least one behavioral problems subscales, and the 48.7% had 2 or more subscale scores in the clinical/borderline range (Hawk & McCall, 2011).

All these converse results prevent us from understanding if age at placement *per se* should be considered as a significant risk factor for later adjustment.

#### **1.1.4.4. Other factors affecting behavioral problems**

In addition to the factors already outlined above, there are some other characteristics of pre-adoption experience have been considered as risk factors impacting on the later adoptee's adjustment.

### ***Gender of the adoptee***

Whereas in the second meta-analyses on adoptee's adjustment non significant differences were found between boys and girls (F. Juffer & van Ijzendoorn, 2005), Miller found that in its America representative sample of adopted adolescents, the differences with the control group were greater for boys with respect to behavioral problems and school adjustment (B. Miller, et al., 2000).

Moreover, a recent Canadian study reports higher rule breaking behavior ( $t=3.493$ ,  $p=.001$ ) and attention difficulties ( $t=4.425$ ,  $p=.000$ ) (Habersaat et al., 2010) among boys, whereas girls scored higher on somatic complaints ( $t=2.872$ ,  $p=.004$ ).

### ***Previous life in institution***

The meta-analysis published in 2005 (F. Juffer & van Ijzendoorn, 2005), showed that international adoptees who experienced pre-adoption adversities, such as those connected to institutional care, manifested more total behavior problems than other international adoptees without such background ( $d=.18$  vs  $d=.09$ ,  $p=.01$ ). The same difference was found with respect to externalizing problems ( $d=.17$  vs  $d=.08$ ,  $p=.03$ ), whereas no significant results emerged for internalizing behavior.

### ***Country of origin and country of adoption***

As underlined with respect to attachment, country of origin is highly correlated to child-rearing practices, mainly with institutionalization. The recent study conducted on Canadian inter-country adoptees showed that adolescents who were born in Eastern Europe scored higher scores on 7 among the 8 scales of behavioral problems, whereas Asians show significantly lower on all the scales. A similar result was found also by Gunnar and colleagues, who underlined a greater risk of developing behavior problems in several domains among adopted children and adolescents born in Russia or Eastern Europe (Gunnar, et al., 2007).

Although international adoption involves almost 100 countries in the world, there is only one comparative study examining the cross-cultural impact of being adopted in different countries (Barni, León, Rosnati, & Palacios, 2008). Results indicated the presence of more similarities than differences between Italian and Spanish subjects. In order to evaluate the impact of the country of adoption, further studies should be conducted in more dissimilar cultural contexts.

To conclude, meta-analytic studies helped summarize the results of almost 40 years of comparisons between adopted and non-adopted children's outcomes. Adoptees appear mostly in good psychological health and well integrated into their new context. The comparison with non-adopted peers shows differences on mental health problems that, however, seems to be attributable to the extreme tails of the distribution and, contemporarily, to a lower parental threshold to seek professional help.

With respect to behavioral problems, no significant differences were found. When present, problems are circumscribed to externalizing behavior (namely attention-deficit hyperactivity disorder; oppositional, defiant, and conduct problems; and substance abuse) and learning problems (Palacios & Brodzinsky, 2010).

Overall, difficulties shown by adoptees do not seem to be simply related to the age at placement, but rather to the effect of the time spent in adverse conditions.

However, it must be noted that in almost all adoption research, the comparison group comprises children from the same type of community or socioeconomic level that currently characterizes the adoptive family. The property of this comparison has to do with the aim of the studies: is the question of interest whether adoptees are adjusting as well as their current peers, or else whether adoption, as a social service practice, protects children from the trauma that often characterizes their early life and the life of the birth family? (D. Brodzinsky & Pinderhughes, 2002)

The present dissertation will examine the behavioral and relational adjustment of adopted children through the lens of the theory of attachment.



## **1.2. The theoretical framework: Bowlby's attachment theory**

In the present section, priority will be given to the reasons why this specific theory will be used in the present dissertation, with a concise explanations of the theoretical concepts used in this investigation.

### **1.2.1. Origins and core concepts**

In the years since John Bowlby first developed the attachment theory (Bowlby, 1969, 1973, 1980), his framework for understanding the power of relationships has been elaborated, extended and applied throughout much important research and clinical works. Nowadays attachment theory is recognized to be a key component in the way we understand the development of a person (Howes & Shivers, 2006).

The birth of the attachment theory dates back to the late Forties, when the English psychoanalyst John Bowlby found a fertile ground in the debate between the opposite concepts of *real* and *fantasmatic*, so urgent at that time, to develop a new framework. His interest toward the contemporary findings in the ethology field (especially those published by Konrad Lorenz) allowed him to focus on the *real* interactions, suggesting an observational method to interpret behavior. Bowlby used the imprinting model, which supported the idea that social behavior, although based on an innate predisposition, become learnt, to explain the development of attachment. Furthermore, John Bowlby was fascinated by Charles Darwin, whose life had a lot in common with the author's: the evolutionary theory became the basis of Bowlby's attachment theory, building a methodological and theoretical bridge between ethology and psychoanalysis (Pierrehumbert, 2009)

Bowlby's interest in adoption dates back to one of his first publications, even before having written the trilogy Attachment and Loss, the milestone of this theoretical framework. Early separations from the mother have been investigated in a study commissioned by the World Health Organization, whose interest derived

from the millions of homeless children brought by the Second World War (Bowlby, 1952). This research allowed Bowlby to test his hypothesis that early separation from maternal figure had dramatic irreversible effects on the later psychological development. The results of this study showed the consequences of different forms of early relational deprivation on the later child's personality, producing what Bowlby called "affectionless and psychopathic character".

Attachment is defined as one of the motivational systems that organize child behavior, and its evolutionary meaning is the maintenance of the proximity to a protective adult in order to survive danger (which in turn helps the child to feel safe, secure and protected). Proximity is reached through a series of behavioral manifestations aimed at minimizing the physical distance and deriving from inner neurophysiological processes. For instance, when a child feels discomfort (because he/she gets hurt or scared), his emotional arousal triggers a behavior (crying) that signal the caregiver to respond (giving physical support). Attachment behavior may also attract attention in a positive way, such as calling and smiling.

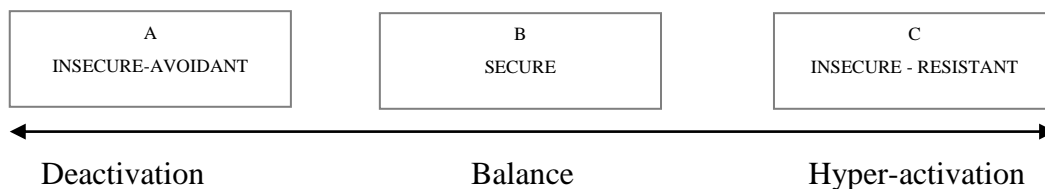
Thus, the attachment system regulates interactions between the dyad on the level of behavior over the early years, creating a set of expectations in the child about the caregiver behavior. These expectations, allowing the child to predict the world and so to regulate his own emotions, are the basis of the so called *Internal Working Model* (IWM), a set of neural nets regulating the way in which a person relates to people who are important for him/her. Attachment representations become a critical component to socio-emotional development of the child and, from late childhood to adulthood, IWMs are investigated as central markers of the adult attachment.

Another great contribution to the attachment theory comes from the pioneering studies conducted by Mary Ainsworth, a psychologist working with Bowlby Tavistock Clinic in London, on the effects of maternal separation on child development at the. During her stay in Uganda she conducted an observational study finding some recurrent attachment behavior and responses (Ainsworth, 1967). These observations made Mary Ainsworth believe in the universality of attachment, and lead her develop an experimental procedure called Strange Situation Procedure paradigm (SSP) (Ainsworth, Blehar, Waters, & Wall, 1978).

The SSP is aimed at assessing the quality of attachment through a series of separation and reunion episodes between the child and the caregiver<sup>7</sup>, because attachment behavior are most in evidence when the infant feels threatened or stressed. This method remains one of the most commonly used for the assessment of attachment relationship in infancy<sup>8</sup> and has the merit of having allowed the identification of different types of mother-child attachment. These patterns are subdivided into secure (B) and insecure attachment, the latter differentiated into avoidant (A) and resistant (C). As shown in Figure 3, the order of the letters represent their placement on the *continuum* between deactivation and hyper-activation of the attachment system (Shaver & Mikulincer, 2002). The child's capacity to flexibly balance, depending on the situation, the activation of the right system, is critical to his/her development.

Figure 3

*Attachment Pattern and the level of the attachment system activation*



The secure pattern represents the good equilibrium between the child's drive to discover the world and the need to feel safe. After the stressful moments of the SSP, secure children can count on a caregiver acting as a *secure base*, available to satisfy his/her psychological needs, and re-establishing the previous state of relaxation.

Further research using SSP highlighted the presence of a percentage of children that couldn't be categorized neither as secure, nor as insecure, because in time of distress their behavior was strange, contradictory, and lacked of an organized strategy. This type of children had been classified as disorganized-disoriented (D) (M. Main & Solomon, 1990), and was found to be related to

<sup>7</sup> In this part of the text will be used interchangeably the terms caregiver and mother to refer to the main attachment figure in the child.

<sup>8</sup>The SSP will be further explained in Chapter 4

maltreatment and abuse (in addition to maternal unresolved loss), so that for these children the caregiver constitutes at the same time an attachment figure and a source of danger. Child attachment disorganization, which derives from a pathological form of parenting, is recognized to be linked to later psychopathology (Cicchetti, Toth, & Lynch, 1995), as will be better explained afterwards.

Along with the increased employment of attachment theory among clinicians and researchers working with psychopathology, another deviation from normative attachment behavior had been underlined. A long debate brought the American Psychiatric Association to conceive the attachment problems as a form of child psychopathology, whose definition was included in their diagnostic manual (DSM) (American Psychiatric Association, 1994). Essentially, nowadays two different forms of attachment disorders are conceived: indiscriminate sociability, in which the infant or young child readily engages with and seeks comfort from strangers, and inhibited behavior, in which the infant or young child actively and fearfully disengages from caregivers, seeking little comfort in times of distress. The World Health Organization's manual, ICD-10 (World Health Organization, 2007), shares the same two subtypes, evidencing that the child's difficulty should be focused toward the deviant caregiver. Indeed, a highly pathological caregiving (through marked neglect/ maltreatment, or extremely repetitive changes of attachment figures) is the common ground of all attachment disturbances, and this is the reason why they are defined Reactive Attachment Disorders.

### **1.2.2. The role of the caregiver**

Mary Ainsworth also investigated the parental attitudes toward the child's requests, measuring them through what she defined the *sensitivity*: the mother's ability to perceive and interpret her infant's signals and communications, and then to respond appropriately. Since her pioneering work, many other researchers have tested the link between maternal sensitivity and the pattern of attachment at the SSP. A recent longitudinal study in an adoptive sample (Beijersbergen, Juffer, Bakermans-Kranenburg, & Van Ijzendoorn, 2012) proved that maternal sensitive support in early childhood and adolescence, predicted continuity of secure

attachment from 1 to 14 years of age. However, in normative samples sensitivity has explained just a small percentage of the child attachment variability. In order to overcome this transmission gap, more recent studies have suggested to distinguish sensitivity from the ability of seeing things from the baby's point of view. The latter capacity, called *mind-mindedness*, helps the development of a relationship on a mental level and strongly predicts attachment security (Meins, Fernyhough, Fradley, & Tuckey, 2001).

This parental capacity to reflect upon the child's experience and upon his/her own experience as a parent is underlined also by Arietta Slade and her colleagues, who defined it as *Parental Reflective Functioning* (Slade, 2005). With respect to Meins's mind-mindedness, parental reflective functioning also addresses the link between mental states and behavior: a mother with a high level of this ability will not only recognize mental states, but she will also be able to link, in a meaningful and correct way, mental states to behavior. The authors believe that the assessment of this parental capacity helps the understanding of intergenerational transmission of attachment, more than inferring this from adults' descriptions of their relationship with their own parents (through the AAI) or evaluating the parent's sensitivity (Slade, 2005)

In conclusion, these parental abilities help the child not only balancing between attachment and exploration, but afterward they also promote his/her emotion regulation. A sensitive and mind-minded or reflective caregiver helps the child develop the ability to appropriately experience and express, but also regulate or manage, his/her emotions, especially very strong or mixed feelings. This is why Fonagy describes the attachment theory as a theory of affect regulation (Fonagy, Target, & Gergely, 2002).

### **1.2.3. Attachment formation and development**

Attachment regulates human relationships throughout the whole life span; in John Bowlby's words it characterizes the human experience "from the cradle to the grave". This ongoing experience is obviously linked to the cognitive and emotional skills developed by the individual since that time.

Bowlby believed in a sensitive period, subdivided into four different phases, in which the attachment bond toward the primary caregiver could develop (Bowlby, 1982). Although nowadays the idea of a sensitive period is at the center of a debate, especially for those who work in the adoption field, it seems important to underline the normative ontogeny of attachment, which should be valid at least for the first attachment relationships built in our own lives. A better understanding of the habitual attachment course will help the comprehension of the adoptee's attachment building at specific ages.

The process of attachment formation begins at birth, when the baby seeks the proximity to the caregiver in order to feel safe. Nevertheless, we have to keep in mind what decades of developmental psychology have underlined: newborns are not *tabula rasa*, on the contrary both genetic features and pre-natal environmental factors impact on their early relationships. During the first year of life, the infant processes all the information coming from the inner and outer world, by perceiving them directly (through his/her sensorial systems) and indirectly through the caregiver's face. The caregiver's *mirroring* reflects emotions and feelings and enables the child to attribute them a sense (Schofield & Beek, 2006).

During the first months of life the infant's communication behavior develop from directing signals toward different adults without discriminating them, to getting more and more selective. From around three to six months, the baby targets more accurately the attachment behavior and develops the synchrony with the primary caregiver, which in turn enables him to start predicting the way the adult responds.

After a few months, these selective behavior lead to the so called "clear-cut attachment" to one or more caregivers. During this period, by around six or seven months, the infant behave specifically in order to attract the discriminated caregiver's attentions and to maintain proximity. Whether separated from this person, the infant shows distress and anxiety (Marvin & Britner, 2008).

In the following period securely attached children are more able to share their exploration activities with the adult. The acquired motricity enables a deeper exploration of the environment, in which the primary attachment relationship continues to serve as a secure base. Between six and 18 months, whichever attachment pattern the child began to build, it will be strengthened by repeated

experience. After the first months, fathers begin to play a fundamental role through promoting and supporting exploration, play, and contacts with peers (Schofield & Beek, 2006).

The next transitional stage has been defined by Bowlby as the “goal corrected partnership”. Starting from 18 months, the child become a more active partner, able to understand what’s in the parent’s mind, so that he/she can adapt his/her behavior and goals to the objectives of the attachment figure. Through cooperation and negotiation, the caregiver and the child can build together a shared plan (Bowlby, 1969).

At the age of about four years old, the goal corrected partnership has been achieved and furthermore the child developed some important cognitive, communicative and social competences (Marvin & Britner, 2008). Specifically, the child acquired the symbolic thought, a function allowing the creation of expectations and representations with respect to attachment relationships (Internal Working Models, see below). Moreover, at this age every child, even those who spent the first years within the family and not in child-care, usually enters the infant school. Consequently, children are committed to new relational challenges, both with their peers and with educators, who become other significant adults for the child.

Moving forward in the individual development, we reach adolescence. One of the key tasks in this period of life is the separation from the attachment figure; meanwhile cognitive abilities enable the adolescent to integrate different attachment representations into a more coherent and flexible model. Finally, in later adolescence and adulthood romantic relationships and particularly meaningful friendships are joint to the attachment relationships in the family of origin. These new relationships share many of the previous attachment relationships but are connoted by mutual support (Schofield & Beek, 2006).

#### **1.2.4. Mental representations of attachment**

During development, children tend to adapt to their relational environment through mental representations of their relationships that help them predict and anticipate social interactions. This obviously requires the achievement of certain cognitive

skills concerning both memory and representational abilities, developing during childhood. Subsequently, the relationship with primary caregivers becomes internalized, creating a mental representation that not only includes the image of the caregiver itself, but also the feelings and ideas associated with that specific person. Bowlby defined these mental representations of attachment the Internal Working Models (IWM).

In his first conception, Bowlby believed in the so-called *monotropy* of attachment: the attachment relationship would be with just one adult figure, usually the mother or the principal caregiver. Monotropy not only considers the attachment relationship as unique, but it also implies the construction of just one IWM, influencing all future significant relationships. This notion has been fairly criticized as rigid and cultural unfair, due to the exclusion of other significant adults in the child's life. Indeed, not only the paternal role in Western culture was minimized, but also other possible attachment figures underlined by anthropological studies were not considered (Pierrehumbert, 2009). Contemporarily, one of the first research published by Bowlby's collaborators (Schaffer & Emerson, 1964), underlined that multiple attachments began soon after the first attachment had been formed and by the age of 18 months, 31% of the children had five or more attachments (e.g. to father, grandparents, etc).

Therefore, the restrictive conception of monotropy has been soon overcome in favor of the multiplicity of IWMs, leaving space for the contribution of different experiences and expectations on the attachment representations. Different models have been proposed in order to conceptualize the possible relationships between the multiple IWMs. The first model proposes a *hierarchical* organization, supposing that the IWM deriving from the primary attachment relationship serves as prototype, influencing the creation of the subsequent ones. The second way to interpret the organization of multiple IWMs is the so-called *integrative* model, which believes that the various representations of attachment can integrate with each other, with secure relationships compensating the insecure ones. The last model of IWMs integration is the *independent* one, which states that each attachment relationships plays a role on a different developmental aspect (Howes, 1999).



The relationship between memory and IWMs is bidirectional: on one hand memories influence the formation of IWMs, on the other hand IWMs affect the way experiences are perceived and stored. This means that even if IWS are flexible, human mind tend to seek and find confirmation of previous expectations instead of adjusting them. This concept is very well depicted by Schofield and Beek (2006), who underline the adopted children's need of new caregiving experiences to be repeated over years before they can become internalizing as a part of a new IWM.

Internal Working Models can be assessed, and we know that there are at least 4 different patterns, each of them is adaptive to self-experience (being based on them), but some are linked to more positive outcomes on general adjustment. The most commonly used instrument for classifying adults' attachment is the Adult Attachment Interview (AAI) (George, Kaplan, & Main, 1985), whose coding relies both on the content of the interview than on the manner of its telling, especially its coherence.

In conclusion, attachment regulates human relationships throughout the life span. Furthermore, research has proved the effect of different attachment patterns on the following developmental outcomes. We already mentioned the link between attachment relationships and later emotion regulation, but literature went further, examining the positive connections between security and many other developmental domains (for a review see the Thompson's chapter of the Handbook of Attachment about attachment outcomes), such as close relationships with peers and partners, personality, social cognition, conscience, and memory (Thompson, 2008). On the contrary, insecure attachment, specifically disorganized one, are overrepresented in clinical samples, showing a greater risk for later psychopathological conditions or problematic behavior, especially oppositional defiant ones, or conduct disorders (Cicchetti, et al., 1995; Fonagy, Target, Gergely, Allen, & Bateman, 2003; van den Dries, Juffer, van IJzendoorn, & Bakermans-Kranenburg, 2009).

### **1.2.5. Attachment paradigm and adoption**

The attachment theory provides an appropriate and special framework to interpret adoption, as a phenomenon always implying separations, loss, and the development of attachment to new parents.

This theoretical framework helps understanding the role of precocious experiences, but at the same time allows for further considerations: on one hand attachment explains the effect of early experiences on the child's mind, on the other hand it conceives that new experiences can challenge expectations and beliefs, supporting the idea that adoption can be a new and fertile opportunity for abandoned children. In Bowlby's words:

“The comparative success of many babies adopted who have spent their first half-year in conditions of deprivation makes it virtually certain that, for many babies at least, provided they receive good mothering in time, the effects of early damage can be greatly reduced” (Bowlby, 1952, p. 49).

At that time, his idea that institutional care lacked the essential ingredients for a healthy development was not yet supported by empirical evidence. Therefore Bowlby encouraged research and studies in the adoption field that could support the effectiveness of this intervention in children's lives.

Attachment theory constitutes an interesting background through which interpret the multifaceted phenomenon of international adoption, and the family relationships implicated. The present dissertation will use it as theoretical framework while analyzing adoption, in the belief that attachment can develop and intervene in family relations and on the adoptee's adjustment, while adoption develops in turn.



## 2. ATTACHMENT RESEARCH AMONG ADOPTEES<sup>9</sup>

When a child is adopted, at least one early relationship in his life has been disrupted. Separations from significant figures experienced by these children are an example of discontinuity of attachment, and at the same time the adoptive child finds him/herself having to build a trusting relationship with the adoptive parents, who at the time of the placements almost constitutes unknown persons. Moreover, most of the children coming from international adoption have passed through institutional care, whose disadvantageous effects on brain functioning and on attachment behavior have been nowadays demonstrated, as reported by important reviews on this topic (D. Brodzinsky & Pinderhughes, 2002; van den Dries, et al., 2009). Hence, it is not surprising if in many studies adoptees are reported to show a greater amount of reactive attachment disorders and a higher percentage of insecure and disorganized attachments.

Attachment researchers have tried to analyze the impact of the discontinuity in the child's life that lies behind the adoptive practice, and this evaluation is important for different reasons. First of all, a change in the attachment patterns toward a higher security would prove the plasticity of IWMs

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<sup>9</sup> Literature review began in September 2010. To identify the relevant studies in the field, different research strategies were used. Initially, the reference list of all the studies cited within the core protocol of the Attachment Adoption Adolescence Research Network (the research network within Study one is inserted), were recuperated and analyzed. Besides, also the relevant studies cited by the previously analyzed papers were searched for. Secondly, other relevant literature was searched in the following electronic sources: PsychInfo and Medline, through major search engines like Ovid and afterward Ebsco. Keywords like *adopt\**, *attachment*, and *security* were used. And lastly, important updates have been regularly searched for. Furthermore, personal contact with some of the authors allowed the rescue of other information, especially with respect to measure's validity. Among all the deriving studies, priority was given to meta-analytic investigations. More recent studies were added.

and the reparative effect of this practice. This in turn will impact not only the later psychosocial development of the child, as previously underlined, but also on the family adjustment and on the success of the adoption itself: for instance, it has been proven that attachment disorders constitute a risk factor for later adoption disruption (Berry & Barth, 1990; D. Brodzinsky & Pinderhughes, 2002).

Some studies have measured attachment at the arrival in the adoptive family, and then compared the resultant pattern's distribution with that of non-adopted comparison groups. Further studies evaluated the impact of adoption in a longitudinal way, measuring attachment among adoptees at different time points. Nevertheless, before presenting these findings, a consideration about attachment evaluation among adoptees must be highlighted.

## **2.1 Attachment measures used in adoption research**

With the aim of reflecting upon the advantages and disadvantages of the existent attachment measures applied to adoption research, the procedures most commonly applied will be presented and discussed, leaving space also for different (but less known) procedures of attachment evaluation.

In order to check what are the attachment measure more frequently used with adoptive families, we referred to the set of studies considered in a meta-analysis about attachment in adoptive samples that will be further analyzed (van den Dries, et al., 2009). Among the set of 39 research analyzed, the large majority (21 studies) used a separation-reunion procedure, whereas 13 studies evaluated attachment through observational procedure, i.e. the Attachment Q-Set (Waters & Deane, 1985) (used in 7 studies) or its shortened version (6 studies). The remaining studies used measures concerning older children or adolescents, or parental representations.

### 2.1.1. Separation-reunion procedures

The *Strange Situation Procedure* (SSP) (Ainsworth, et al., 1978) is the main instrument to evaluate the attachment relationships in infancy, and it consists of eight 3-minute episodes during which two separations from, and reunions with, the parent occur. Aim of this procedure is to capture the balance of attachment and exploratory behavior under conditions of moderate stress. On the basis of the behavior shown by the child toward the parent, their relationship is categorized into one of three different groups (secure, anxious-avoidant and anxious-resistant), to whom authors added a fourth category, related to disorganized behavior (M. Main & Solomon, 1990).

Since the SSP is suitable for children between 12 and 20 months, some authors developed an adapted SSP in order to increase its age-range of applicability, developing different coding systems such as the Cassidy–Marvin system (Cassidy, Marvin, & Attachment, 1989-1992), the Main–Cassidy Attachment Classification for Kindergarten-Age Children (M. Main & Cassidy, 1988), and the Crittenden's Preschool Assessment of Attachment (PAA: (Crittenden, 1992), to increase the range of age.

Although the separation-reunion procedures are the most utilized even in adoption studies, these procedures arise some problems. First, in the adoption context we should be cautious in using separation-reunion procedures. Adopted children have often lived in orphanages, or at least they have experienced deprivations, separations, or even child abuse and maltreatment: for these reasons, it is recommended not to stress separations in order to evaluate attachment of adopted children, especially during the first year of placement (Farnfield, 2009; Solomon & George, 2008; Stovall & Dozier, 2000) Moreover, it is not clear if separation/reunion procedures are evaluating the caregiver-child relationship instead of the way the child is used to behave toward adults; this limit becomes even stronger if the evaluation is made at the beginning of the adoption process.

Another critical issue concerns the disorganization of attachment: this lack of attachment strategies, more frequent in adopted samples (Hodges, Steele, Hillman, Henderson, & Kaniuk, 2005; Marcovitch et al., 1997; van den Dries, et al., 2009), could assume with these children different meanings (in relation to

previous separation experiences) or different forms, that these procedures should misunderstand or not identify (Solomon & George, 2008). Moreover, the laboratory procedure and its coding are very expensive, and it is difficult to use them in clinical practice. Finally, its application is not suitable to assess the building of a new child-caregiver bond: to assess a process, indeed, we must be able to repeat measurement in order to confront different results and to understand what is changing and how: the SSP shows low values of test-retest reliability, maybe due to the sensitization of the subjects to the procedure, and a 6-months interval between two administrations of the procedure is required (Solomon & George, 2008).

### **2.1.2 The Attachment Q-sort**

As previously said, a less invasive way of measuring attachment is the AQS (Waters & Deane, 1985) a Q-sort questionnaire composed of 90 items. The AQS is aimed at measuring the balance between proximity seeking and exploration that the child shows at home, when relating to the caregiver. The questionnaire can be fulfilled by an expert, who has observed several hours of interaction, or directly by the caregiver. The procedure requires ranking the items listed on different cards from "most descriptive of the child" to "least descriptive of the child". The final score represents the level of security shown in the relationship observed, without any reference to different types of insecurity and/or disorganization.

If compared to the SSP, the AQS appears to be less intrusive, and can be applied to a larger age range (up to 5 years of age). Nevertheless, its weaknesses are related to its unproved stability over time and to the unsatisfactory convergent validity with the SSP (Solomon & George, 2008). Indeed, the correlation between ASQ and SSP scores is modest, especially after 18 months of age and if filled by the caregiver. As shown by the meta-analysis led by the University of Leiden (M. van IJzendoorn, Vereijken, Bakermans-Kranenburg, & Riksen-Walraven, 2004), the correlation between SSP and AQS is sufficient if the test is filled by an expert ( $r=.31$ ,  $p<0.01$ ), whereas it decreases if the filler is the caregiver ( $r=.14$ ,  $p<0.5$ ). Thus, AQS scores are reliable just when reported by an expert conveniently trained to observe attachment relationships. Moreover, the same meta-analytic findings

showed that more valid AQS data were collected in studies with more than 3 hours of observation. These two aspects constitute a limitation for its use in the attachment process' evaluation, since the use of the AQS would require a great involvement of researchers specifically trained to use it. Moreover, in order to evaluate the increase of security in adoptive samples, a larger number of studies on the stability of AQS measures through different ages would be required (Solomon & George, 2008).

In their meta-analyses, the authors tested the possible moderation effect of the attachment measure used. In all the studies considered, the differences between the effect size of SSP and Cassidy-Marvin system was tested, resulting in no significant differences. As only two adoption studies in the core set (of 17 studies) used the AQS, the contrast between AQS and SSP was not tested. However, the level of confidence intervals suggested that no differences between the effect sizes of the subsets were present (van den Dries, et al., 2009).

### **2.1.3 New perspectives for attachment evaluation in adoption research**

The use of assessment procedures based on the continuity of the attachment relationships, not considering the frequent experiences of deprivation and separation which adoptive children are often exposed to, appear to be unsuitable for the attachment evaluation in the complex framework of adoption (Solomon & George, 2008).

Moreover, adoptive children have been frequently institutionalized, have experienced neglect and/or abandonment, and always have passed through at least one separation from the previous caregiver. Therefore it would be important to reduce, as much as possible, the stress linked to separations, developing and applying specific and ecologically valid instruments for attachment assessment in adoptive families (Dozier & Rutter, 2008; Farnfield, 2009; Solomon & George, 2008).

The latter consideration has been underlined even by two of the major experts about attachment theory, Solomon and George (2008), who highlighted



that the evaluation of clinical and atypical children (who experienced deprivation of attachment figures, or major and frequent separations, as in adoption) needs a twofold procedure. On one hand a new look on standard tools is needed; on the other hand researchers should invest in the development of new procedures, ecologically valid for this specific population.

When a child is placed in a foster care or adoptive family, he/she is at a developmental stage in which selective attachment relationships would have already been formed with the caregiver. Hence, the process by which new selective attachment develop, moves along different trajectories, or takes a different form (Dozier & Rutter, 2008). Despite every study using adoptive samples share the interest about new attachment relationships, virtually no quantitative data has been collected regarding how adoptive children become attached to the new primary caregiver. The first months of placement within the adoptive family offers a precious opportunity to deeper investigate this issue in a longitudinal and microgenetic perspective (Lavelli, Pantoja, Hsu, Messinger, & Fogel, 2005), but as previously underlined, the attachment evaluation tools functional to this purpose are limited.

In order to respond to these methodological considerations, Mary Dozier and Chase Stovall, two colleagues working at the University of Delaware, developed a different tool, designed to offer an ecologically valid measure, specifically oriented at analyzing the *process* of attachment building in the new family (Dozier & Stovall, 1997). The *Parent Attachment Diary* (PAD) is a parent-report questionnaire in which attachment behavior show by the child in daily stressful situations are reported. The authors developed and used the PAD with the aim of evaluating the development of attachment in non-normative family settings, applying it to foster care families. Foster care represent a different form of parenthood and caregiving, which is for many aspects similar to the adoptive one: indeed, children who benefit from these practices often share a similar background, first of all the rupture of attachment bonds.

Whereas the PAD will be described in greater detail in Chapter 3<sup>10</sup>, in the next section the results deriving from the few studies analyzing the attachment process will be reported.

### **2.1.3.1 Evaluating the attachment process**

To our knowledge, all the studies analyzing the attachment development have conducted repeated measurements of this construct through the PAD, or through an adaptation of this measure in form of interview.

The two studies using the PAD were aimed at the detection of an attachment trend in foster care over the two months after placement. The first study (Stovall & Dozier, 2000) conducted single subject analyses on a sample of 10 infant-caregiver dyads, whereas the second study (Stovall-McClough & Dozier, 2004) used a larger sample of 38 dyads, modeling any potential trend in attachment behavior. Results of single subject analyses showed a significant individual variability, with some children not developing a clear and stable attachment pattern during the first two months of placement. Later, the same authors found that child's age and foster parent's attachment state of mind predicted child secure and avoidant behavior, whereas they did not for resistant ones. Specifically, infants with autonomous foster parents, as well as infants placed at younger ages, showed higher early and overall levels of secure behavior, less avoidant behavior, and more coherent attachment strategies, if compared to infants placed with non-autonomous foster parents (Stovall-McClough & Dozier, 2004).

However, results obtained in foster-care facilities are not always generalizable and applicable to adoptive families: even if children suitable for adoption and foster care often share a common background, these two forms of placements are differentiated by their permanency and by the family commitment (D. Brodzinsky & Pinderhughes, 2002). Since the investment of adoptive parents is much higher, as well as at a longer term, they are probably more faced to the adaptation from the imagined child's representation to the real one. Moreover, sometimes it is still persisting a cultural heritage which considers adoption a

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<sup>10</sup> Indeed, Chapter 3 is focused on Study 1, which is based on the use of PAD in adoptive families.

private act (whereas foster-care is believed to be a social practice), so that adoptive parents tend to face their difficulties on their own, without looking for external help.

It is presumable that all these differences can have an influence on the child's perception of his/her new secure base's stability, which in turn may impact on the child's investment on the new attachment relationship. The reason that leads to the child's placement constitutes another difference between adoption and foster care: whereas in the latter, children always share the caretaker incapacity or absence, adoption (especially international one) includes more variegate scenarios, such as cultural reasons, poverty, and family policy.

To our knowledge, the unique study analyzing the attachment process in an adoptive sample (n=32 Chinese girls adopted in Canada) found a fast and steady rate of growth in secure attachment behavior over the six months period ( $t(62) = 2.59, p=.013$ ). Whereas at the beginning of placement, adoptive children (when distressed) showed significantly fewer secure behavior than their non-adopted peers ( $t(62) = -4.38, p = .000$ ), this difference disappeared after six months spent in the adoptive family. On the contrary, no differences between adopted and non-adopted children, and no variability over time, were underlined with respect to insecure behavior (Pugliese, Cohen, Farnia, & Lojkasek, 2010; Stovall & Dozier, 2000).

## **2.2 Security and disorganization: attachment distribution among adoptees**

After having presented all the measures used in adoption research, we will now focus on the results found by researchers who analyzed attachment after the child had spent a longer or shorter time in the adoptive family.

Research literature includes a large number of studies investigating the distribution of the attachment patterns or representations. Nevertheless, despite their extensiveness, the results are ambiguous: whereas the majority underlines a lower percentage of attachment security among adoptees, other few studies did not find any significant difference between adoptees and controls. Moreover, the

distribution of attachment insecurity and attachment disorders shows very contrasting results.

Different reasons can lay behind this inconsistency, such as the small number of participants, and the use of different measures. Specifically, among the instruments measuring attachment, some of them not even measure insecure behavior (i.e. avoidance and resistance), therefore it becomes difficult to compare their results. The Leiden University's team, unanimously recognized for their important research contributions in the fields of attachment and adoption, decided to use a meta-analytic procedure in order to test whether adoptees showed less security and/or more disorganization than community samples (van den Dries, et al., 2009)<sup>11</sup>. Since many of the studies included in the meta-analyses did not report level of avoidant and resistant attachment (because of the attachment measure employed), the authors explored the rate of secure attachment and disorganization, considering the latter as the most insecure type of attachment. The authors also took into account the possible moderating role of the variables highlighted by the literature (such as age at placement, years spent in the adoptive families, continent of origin, domestic/international, and trans-racial/same-race placements).

Initially, through secondary analysis, the distribution of attachment classifications of adopted children ( $k = 11$  studies using the SSP) was compared to the normative distribution of non adoptive children (M. van Ijzendoorn, Schuengel, & Bakermans-Kranenburg, 1999), showing a significantly different distribution:  $\chi^2(3, N = 2572) = 106.41, p < .05$ . Adopted children were less secure attached (47% *versus* 62%) and more disorganized (31% *versus* 15%).

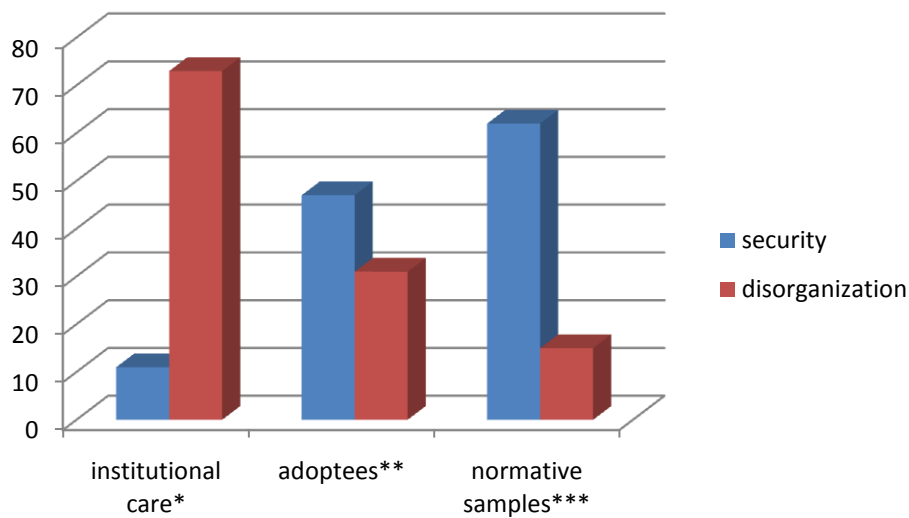
However, as Figure 4 clarifies, when compared to children in institutional care, they showed a higher rate of security (47% VS 11%) and a lower rate of disorganization (31% VS 73%).

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<sup>11</sup> Due to the recognized importance of meta-analytic results, and in light of the recent publication, I will use this paper as reference to interpret the literature results.

Figure 4

*Attachment security and disorganization among children in different rearing contexts*



\* Vorria et al., 2003; Zeanah et al., 2005, \*\* van den Dries et al., 2009 (meta-analytic results from 11 studies), \*\*\* van Ijzendoorn et al., 1999 ( $k=11$ )

Through a meta-analysis, the same authors deepened the distribution of attachment security and disorganization. The sample was constituted of a heterogeneous set of 17 studies using observational procedure for the attachment's assessment.

With respect to adoption security, a publication bias was found. When allowing for that, the effect was not significant ( $d = .20$ ,  $CI = -.01 -.43$ ). This result suggested that adopted children show as secure attachment behavior to their parents as non-adopted control do. Attachment disorganization, on the contrary, showed a positive effect size ( $d = .46$ ,  $CI = .14 -.77$ ,  $n = 468$  adoptees), meaning that adoptees show more disorganized attachment than non-adopted children. This difference is interpreted in the light of the many risk factors associated with pre-adoptive experiences (such as abuse, neglect and abandonment) suggesting that, as a result of adoption, children show a significant although incomplete recovery in the organization of their attachment system.

The authors were also interested in analyzing attachment distribution among children living in foster-care facilities. The same procedure lead to very similar results: the adjusted effect of the meta-analysis conducted on a homogeneous sample of 11 studies was not significant ( $d = .06$ ,  $CI = -.27 -.15$ )

with respect to attachment security, whereas for disorganization an effect size comparable with that of adopted children was found ( $d = .41$ ,  $CI = .07$ -.74,  $n = 126$  foster children).

Another meta-analysis with broader features was conducted on adoptee's attachment security, including not only the previous set of observational research, but also taking into account the studies using questionnaires and projective measures. In this larger set of 39 studies, the comparison with the non adoptive control group showed a small but significant effect size ( $d = .24$ ,  $CI = 0.10$ -.37,  $N = 2912$  adoptees) in favor of the comparisons, who appeared to show a higher rate of attachment security. Nevertheless, when the emerged publication bias was treated statistically, the adjusted effect was not significant anymore ( $d = .012$ ,  $CI = -.02$ -.26).

In summary, we can state that there is a visible difference between the rates of attachment patterns in institution and in adoption. Deeper meta-analytic efforts (e.g. accounting for sample sizes) showed that the disparity between adopted (or foster-care) children and their non-adoptive peers was significant with respect to disorganized attachment (with higher rates among adoptees and foster children). However, is not the same for attachment security, whose distribution is not statistically different between adoptees / foster care children and non-adopted controls.

Disorganization has been found to be linked to behavioral problems, underlying the association between attachment and the adoptee's adjustment. To our knowledge, attachment and behavior have always been studied separately as different outcomes in adolescence, therefore it would be important to analyze any potential reciprocal influence between these two constructs.

## **2.3 Adoptees' attachment over time: longitudinal studies**

A longitudinal study was conducted in the United Kingdom by Hodges and colleagues (Hodges, Steele, Hillman, Henderson, & Kaniuk, 2003; Hodges, et al.,

2005), in order to analyze the possible change in the attachment representations of 56 late adopted children (at the average age of six years), who had experienced previous multiple changes of caregiving and had been victims of multiple abuses (neglect, exposure to domestic violence, physical or sexual abuse). Data collection used narrative assessments at 4 different time points: the first data collection was conducted as soon as possible after placement, whereas the others were carried out year by year.

The authors used a very interesting comparison group of different adoptees (41 children placed with their adoptive parents during infancy), that allowed separating what was connected to the adoption status itself, from what was due to the pre-adoptive hardly negative experience. At first assessment, the previously maltreated group showed the use of avoidance strategies to regulate their emotion within the story completion task, in addition to a greater proportion of disorganized features. Not only these significant differences characterized the comparison between previously abused or non-abused children, but also between those who had suffered more / less abuse (Hodges, et al., 2005).

In a longitudinal perspective, during the first two years of placements some positive changes were trying to develop and to consolidate in children's narratives. However, it did not appear to be sufficient in order to restructure their IWMs in depth, since the rate of disorganization remained almost identical even after 2 years and, in general, the insecure traits did not decrease significantly. The magnitude of the positive changes was also higher among children adopted in infancy than children adopted later and/or victims of abuse. Despite negative experiences leave their mark on the ability to manage emotions in an organized and coherent way, the stable provision of care seems to provide the opportunity to develop a better relational and emotional strategy for most of these children (Hodges, et al., 2005).

The changes in adoptee's attachment have also been investigated by some Italian colleagues at the University of Rome (Pace, Castellano, Messina, & Zavattini, 2009; Pace & Zavattini, 2011; Pace, Zavattini, & D'Alessio, 2012). Their studies were aimed at examining the possible change of attachment behavior and representations during the first 7- to 8-month of placement. Results showed a

significant ( $p = .002$ ) change in the attachment behavioral patterns of late-adopted children, from insecure to secure.

The authors concluded that a revision of the attachment behavior of late-adopted children seems possible, but for about one-third of children, the adverse history will persist at a narrative/representational level. Furthermore, although the link between the adoptive mothers' representations of their attachment history and their adopted children's narratives was not significant, the authors discovered that the children who presented this change, were predominantly placed with secure-autonomous mothers.

Another longitudinal study conducted in the Netherlands, examined the attachment representation of 125 adolescents adopted internationally before the age of 6 months (Beijersbergen, et al., 2012). Researchers compared the attachment behavior showed at the age of 12 months during the SSP with the attachment representations evaluated 13 years later through the AAI. The 39.2% of the adoptees showed a secure-autonomous representation, whereas the remaining appeared to be insecure at the AAI (41.6% dismissing, and 19.2% preoccupied).

Using secure *versus* insecure classifications at both ages, they found almost the 45.6% of corresponding classifications in infancy and adolescence, specifically 38 adoptees (30.4%) were secure at both assessments, and 19 adoptees (15.2%) were insecure in infancy and adolescence. The continuity of attachment was tested through sequential logistic regression and results were not significant:  $\chi^2(1, N = 125) = .11, p = .74$  (Beijersbergen, et al., 2012).

The authors stated that their research also accounted for the role of maternal sensitivity, and concluded that the continuity of attachment across the first 14 years of life seems dependent on the continuity of the child-rearing context. Without taking parental sensitive support into account, no continuity of secure or insecure attachment from 1 to 14 years was found.

Even if further attachment measurements between infancy and adolescence would have better clarified the process, it is nevertheless striking that even for those children who did not share a durable "baggage" of relational experience before entering the adoptive family, no stability of attachment was found from infancy to adolescence. This result highlights the necessity of considering attachment among adoptees as a process characterized and permeated by



dynamicity: multiple assessments of attachment must be conducted in order to better understand the nature of this process, and the role of intervenient factors.

## **2.4 Moderators of attachment among adoptees**

The interest toward the factors impacting on the adoptee's secure, insecure or disorganized attachment is vast. Many authors considered the age at adoption as the major moderator of attachment, whereas in the last years researchers are trying to better contextualize its role. The quality of pre-adoptive relational experience lead to the identification of numerous moderators: from the number of changes in caregiving, to negative experiences such as neglect, maltreatment, and abuse. Moreover, institutionalization often takes in itself some of the previously cited variables.

In the following sections, the results found in previous research will be summarized.

### **2.4.1. Attachment differences with respect to age at adoption**

The role of age at placement is considered as the major moderator of attachment, as long as of mental health and behavioral problems. In order to account for each study's sample size, strengths, and weaknesses, a resumptive review based on the previously cited meta-analytic study will be reported (van den Dries, et al., 2009).

In the core set of 17 studies using observational attachment measurement, the difference between the effect sizes of the children adopted before and after 12 months of age was significant, with respect to security  $Q(1) = 15.68, p < .01$ . By comparing the adoptees with their non-adoptive peers, those placed in their family before 12 months showed secure attachments as often as non adopted children ( $k = 12, d = .08, CI = -.09, .25, n = 524$  adoptees), whereas those adopted after their first birthday were significantly less secure than the control group ( $k = 5, d = .80, CI = .049 -1.12, n = 198$  adoptees). The extent of the latter effect size shows that

the difference between the level of security of late-adopted and their non-adopted peers is large (van den Dries, et al., 2009).

This effect size was underlined without considering the previous experiences lived by the child, e.g. growing up in institutional care. We can nonetheless suppose that the longer the time spent in difficult conditions, the harder the possible gaining of security. Subsequently, the moderator effect of age at placement can be understood as the impact of the time spent in adverse circumstances, whereas the time *per se*, when passed in a caring environment, could not act as a risk factor. These results show that it seems easier to prevent insecure attachment (allowing the child to experience a sensitive caregiving), than to modify the negative expectations that the child develops in a non-nurturing environment.

Although not directly related to the adoptees' attachment, it seems important to underline the results shown by Miriam Steele (M. Steele, 2003) with respect to the representations that parents offer about their adopted children. Parents of children who had been placed relatively late, experience a greater need for support, and report higher levels of children's aggression, rejection, control behavior, and overfriendliness. This contrasts with children placed earlier in infancy, whose adoptive mothers report higher levels of joy, competence, confidence, warmth, happiness, and affection.

In conclusion, considering that the average age of international adoption is constantly increasing, these results underline even more so the necessity to better understand the role of age at adoption on the later behavioral and emotional adjustment.

#### **2.4.2. Early institutional life and later attachment**

Nowadays, in Western world, institutional care<sup>12</sup> is an uncommon rearing practice. Nevertheless, the so-called orphanages are still effective in many developing countries. In these childcare facilities, the low rate of workers per children limits

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<sup>12</sup> The "Better Care Network" defines an institution or residential care home for children as a group living arrangement for more than 10 children, without parents or surrogate parents, in which care is provided by a much smaller number of paid adult carers (<http://www.crin.org/bcn/>)

the availability and accessibility towards the child's needs, so that there is a lack of specific consistent and responsive caregivers, independently from the level of sensitivity shown in different conditions by the worker.

After Spitz, who at the beginning of the 20<sup>th</sup> century described a syndrome developed by those children in institutional care who suffered from an emotional lack, many other research results underlined the massive risk linked to this form of childcare and leave little doubt that caregiving deprivation plays an etiological role on attachment disorders. In understaffed institutional upbringing, even when physical and nutritional needs are met, children's attachment behavior are characterized by tendency "not to care deeply about anyone", marked attention-seeking, and "overfriendly" behavior to strangers (Tizard, 1991).

Moving forward to understand what are the outcomes of this early deprivation, O'Connor and Rutter analyzed attachment disturbances in a sample of children (6 years old), who lived in institution before adoption (at 24 months). Analyses revealed a close association between duration of deprivation and severity of attachment disorder behavior ( $r = .30, p < .001$ ). In addition, attachment disorder behavior were correlated with cognitive level, attention and conduct problems, but nonetheless appeared to index a distinct set of symptoms/behavior. Finally, their longitudinal findings (over a 2-years period) indicated a marked stability in individual differences in attachment disorder behavior and little evidence of a mean decrease over this 2-year period (O'Connor & Rutter, 2000).

In adolescence, adoptees who had experienced early institutional rearing showed attachment disorder behavior in association with the duration of early severe deprivation. Nevertheless, a substantial number of children exposed to even prolonged severe early privation did not exhibit these symptoms, showing a remarkable resilience factor (O'Connor, Bredenkamp, Rutter, & team., 1999).

The effect of institutional care on attachment is not limited to its impact on attachment disorders, but also has to do with the level of security/insecurity shown in attachment relationships. Chishlom (1998) showed that children who spent at least 8 months in a depriving environment displayed significantly more insecure attachment patterns than did their non-deprived peers. Additionally, they were more frequently insecure than other adopted children who spent a shorter period of time (max 4 months) in the same institutional upbringing.

To conclude, different results have shown that not only the institutional rearing is related to attachment disorders, but the duration and the severity of this deprivation play a role on the gravity of the attachment difficulties shown later in development. In international adoption, the time spent in difficult conditions is significantly correlated to the age at adoption ( $r = .70, p < .05$ ), underlying once again the tight link between this two moderators of attachment (Palacios, 2011).

Nonetheless it is fair to remark that there are a few examples of institutions respecting the child's developmental needs. Most of them follow the example of Loczy, an orphanage developed in Budapest by Emmie Pilker. In these contexts the child is able to develop an attachment bond toward the nurse, who nonetheless is not aimed at behaving like a mother (interfering with the child's emotional and physical activities), on the contrary she is trained to follow and comment the child in his/her discoveries (Pierrehumbert, 2009). Two follow-up studies have been conducted in 1968 in Hungary on adolescents or young adults who had lived part of their infancy in Loczy: the first one included 100 participants, none of whom presented personality disorders or showed criminal behavior. Since Bowlby reported that institutionalized girls, once become adult, tend to develop indiscriminate sexual relationships and to abandon their children, the authors looked for this type of behavior among the 73 young women of their sample of 158 participants (enlarged from the previous study). None of them had gave birth to children outside the marriage, and all the 5 mothers took care of their baby (Pikler, 1996).

### **2.4.3. Effects of country on attachment**

In Eastern Europe the breakdown of communist regimes led all inhabitants in severe conditions, and also to a harsh situation of the childcare system. Institutional upbringing welcomed lots of war's orphans, in addition to the large number of offspring of needy and poor people who couldn't raise their own children. Moreover, the increasing rate of adults' drug and alcohol addiction brought a large number of undesired children sharing neurological alterations in brain development, and sometimes even complex syndromes caused by substance abuse during pregnancy.

When inter-country adoptions highlighted the conditions in which these minors lived, a deep research interest toward the effect of this deprivation arisen. Particularly, after the studies published by O'Connor, Rutter and the English and Romanian Study Team (1999), the country of origin issue received more and more importance.

Research considering more heterogeneous samples of adoptees from all over the world often tested the hypothesis of a higher rate of attachment problems (as well as behavioral problems) among children adopted from East-Europe, showing ambiguous results. A recent follow-up study on 125 Dutch internationally adoptees, showed that attachment classifications were not associated with country of birth<sup>13</sup> (Beijersbergen, et al., 2012). On the contrary, the Leiden's meta-analysis ( $k = 12$ ) showed that country of origin became a significant moderator just when Eastern European children were considered apart from other European countries ( $Q(1) = 5.73, p < .05$ ), with Eastern European adoptees showing less attachment security than their non-adopted peers ( $d = .58, CI = .29 -.87, n = 216$  adoptees). Moreover, the same study found that adopted children born in Asia showed the same level of attachment security then the non-adopted sample ( $d = .12, CI = -.13 -.36, n = 227$  adoptees) (van den Dries, et al., 2009).

The moderating role of country of birth on international adoptees' attachment seems more associated with the previous type of child-care than with cultural or geographical aspects.

Whereas there is a large amount of research using the country of origin as a moderating variable, to our knowledge only two studies analyzed the cross-cultural impact of being adopted in different countries. The first example has to do with previously cited data of Romanian children adopted in Canada and UK (Barni, et al., 2008; Chisholm, 1998; O'Connor & Rutter, 2000), although to our knowledge no direct statistical comparison have been conducted. The second study didn't have to do with attachment; but it was conducted by Spanish and Italian researcher in order verify the extent to which cultural context may contribute to shaping children's emotional and behavioral problems (Barni, et al., 2008). Researchers

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<sup>13</sup> It has to be noted, however, that participants in this study were adopted within the sixth month of age, so that the pre-adoption conditions experienced in the country of origin were limited in time.

reported the presence of more similarities than differences between Italian and Spanish adoptees.

#### **2.4.4. Attachment with respect to the time spent in the adoptive family**

The plasticity of IWMs of attachment allows a child to accommodate new experiences, and so to review his/her expectations about primary relations. Through continuous reiteration over time, the offering of a new and positive relational model can play a significant role on the change of the child's attachment representation (Schofield & Beek, 2006).

It is plausible that, controlling for age at placement, a longer time spent in the adoptive family can help a child show a higher rate of security, as longitudinal studies underlined (Hodges, et al., 2005). However, in the already mentioned meta-analysis conducted by Linda van den Dries and colleagues (van den Dries, et al., 2009), the time passed since the adopted child was placed in the adoptive family did not moderate the level of attachment security nor disorganization.

This unexpected result can be due to different reasons. First of all we should take into account the relational model offered by the adoptive parent: an insecure adoptive mother, for example, cannot stably offer the child a secure base, so that the possible change over time of the adoptee's attachment representation wouldn't go in the direction of an increased security (the parental role will be further analyzed in the next section). Another factor that could have limited the moderating role of the time spent in the adoptive family, is the child's age at adoption and at assessment: older children, whose IWMs already developed, may take a longer time to change their representations and expectations about the caregiver.

Even if the meta-analysis showed no significant role of the years spent in the adoptive family, it is important to take this factor into account when evaluating the change of attachment representations among adoptees, allowing children to experience a new model of relationships for a sufficient quantity of time before looking for a change.

## **2.4.5. Adoptive parents' representations**

David Brodzinsky, one of the most important American experts in the psychology of adoption, considers family relationships as the most important background factors in the adopted child's adjustment (Schechter & Brodzinsky, 1990). It is within the context of sensitive, thoughtful and reflective relationships with their caregivers that adoptive children learn to feel safe, to explore, to make sense, and to grow (Howe, 2006).

In the following section, research evidence underlying the impact of different parental dimensions on the adoptee's attachment will be reported.

### **2.4.5.1 Parental representations of attachment**

Adoptive samples allow testing the hypothesis of intergenerational transmission of attachment among individuals not biologically related.

In a sample of 61 adopted school-aged children, Miriam Steele and colleagues analyzed the correspondences between the maternal state of mind evaluated through the AAI, and their children's attachment narratives at story completion task three months after placement (M. Steele, Hodges, Kaniuk, Hillman, & Henderson, 2003). Results revealed a strong and significant influence of maternal state of mind on child's narratives. Adoptees whose mothers were insecure provided story-completions with higher levels of aggressiveness (mean = 2.9) as compared to the stories provided by children adopted by mothers with secure-autonomous AAIs (mean = 2.0, T-test = 2.0,  $p < .05$ ). Moreover, unresolved mourning in the mother seemed to exacerbate the emotional worries of a recently adopted child, who in the narrative appears less able to use an organized strategy to deal with the conflict depicted in the story. This result was obtained controlling for the level of adversities faced by children in their early life (M. Steele, et al., 2003)

Similar results have been found in Italian samples. Pace and colleagues, from the University of Rome, conducted a longitudinal study demonstrating that late-adopted children who showed a change in their attachment (from insecure toward secure) were predominantly placed with secure-autonomous adoptive

mothers, although the link between the adoptive mothers' representations of their attachment history and their adopted children's completed narratives was not significant (Pace, et al., 2012).

Another Italian study using the same attachment measures, investigated the possible connections between children's narratives and parental state of mind (Barone & Lionetti, 2012). Authors found a concordance of 80% ( $K = 0.55$ ,  $p < 0.01$ ) between adoptive mothers' and children's attachment when a two way classification (secure *versus* insecure) was considered. No concordance emerged between paternal state of mind and the child's attachment representation, nonetheless the 75% of children with a primary secure attachment category (three of four children) had both parents with a secure state of mind.

The adoptive parent's state of mind was also found to be linked to the representations that the same parent offered about their child and the relationship built with him/her. Insecure or unresolved parents appeared to be more likely to describe their adoptee, and the parent-child relationship in negative ways (M. Steele, et al., 2003).

In conclusion, it seems plausible that, in a longitudinal way, maternal representations of attachment moderate the change of the child's narrative toward a higher rate of security. Further research should deepen the paternal representations in order to better analyze the role played by the father.

#### **2.4.5.2 Parental reflective functioning and sensitivity**

As stated in the previous chapter, Peter Fonagy, Arietta Slade, and their colleagues, believe that parental reflective functioning (the capacity to understand their own behavior and those of their children in terms of mental states, intentions and needs, and to reflect their children's psychological experiences) plays an important role in the intergenerational transmission of attachment (Fonagy, Steele, Steele, Moran, & Higgitt, 1991). According to these authors, a better understanding of the attachment transmission would be reached through the evaluation of parental reflective functioning, instead of through the analysis of attachment



representations (Slade, 2005). In non-adoptive samples, this parental capacity is linked to the quality of child attachment (Fonagy, et al., 1991), and constitutes a protective factor regarding adolescents' psychopathology (Fonagy, 2000).

The connection between parental reflective functioning and adoptive adolescent's adjustment has been proven in a sample of adopted adolescents. Specifically, a higher paternal reflective functioning was correlated with many positive adolescent's outcomes, mainly a higher capacity of the adoptee to interpret behavior in the light of mental states (Benbassat & Priel, 2001). To our knowledge, no studies analyzed the possible moderating role of parental reflective functioning on the adoptees' attachment.

On the contrary, a few studies underlined the role of parental sensitivity (the ability to observe and respond to the baby's signals adequately and promptly), on attachment in adoptive families. Femmie Juffer and colleagues proposed a video-feedback intervention aimed at promoting maternal sensitivity in a sample of adoptive families, showing that children whose mothers received the intervention, were less likely than controls to be classified as disorganized attached at the age of 12 months, and received lower scores on the rating scale for disorganization than children in the control group (F. Juffer, Bakermans-Kranenburg, & van IJzendoorn, 2005).

The construct of sensitivity is usually associated to the parental responses toward babies and infants, whereas it is less considered among older samples. An interesting study showed the importance of this capacity even with adolescent adoptees, demonstrating its predicting value on the continuity of secure attachment from 1 to 14 years (Beijersbergen, et al., 2012).

To conclude, even if the quantity of studies differs one from another with respect to the moderators considered, we can state that the previously considered parental characteristics appear to moderate the adoptee's attachment, underlying their importance not only for future research, but also for clinical purposes and interventions.

## **2.5. Study rationale**

### 2.5.1. Overall purpose

Research literature and clinical contributions more and more often underline the importance of considering attachment within the adoptive families. A great amount of research focusing on adopted children who experienced early adversities, has proven the negative effect of deprivation (Bowlby, 1952; D. Brodzinsky & Pinderhughes, 2002; Croft et al., 2007; Rutter, Colvert, et al., 2007; Rutter, Kreppner, et al., 2007) and, at the same time, has allowed the detection of the impressive recovery following adoption (Judge, 2003; F. Juffer & Van Ijzendoorn, 2009; Rutter, 1998; M. H. van Ijzendoorn & Juffer, 2006).

Although in this perspective the child's attachment can be interpreted as a static outcome, the present dissertation assumes a dynamic perspective, meaning that both adoption and attachment will be considered as ongoing processes. Thus, attachment will be analyzed at different time-points, which represents different phases of the adoptive family life. Indeed, the remarkable baggage of genetic, cultural, and relational aspects that every member of the adoptive family brings into this experience, renders the idea of how this family dynamics must be flexible while the family members gets attuned to each-other. The core idea of the present dissertation is that attachment can develop and intervene in family relations and on the adoptee's adjustment, while adoption grows in turn.

Jesus Palacios and David Brodzinsky, two of the major experts about the psychology of adoption, have underlined the necessity of current research on adoption to focus on underlying processes and factors impacting on adoptive families. This must be done in order to clarify the basis for the profound individual differences in the adoptees' adjustment highlighted by the literature (D. M. Brodzinsky & Palacios, 2005; Palacios, 2011; Palacios & Brodzinsky, 2010).

As attachment is proved to play an important role on the adoptee's well-being, as well as on the whole family adjustment (D. Brodzinsky & Pinderhughes, 2002), the present dissertation is aimed at examining this construct longitudinally in a various set of adoptive families, who differ with respect to the actual age of the adoptee, the form of adoptive placement, and the time spent in the adoptive family.

## **2.5.2. Research studies**

The present work is composed of two studies, both analyzing the role of attachment in the adoption process, focusing on two phases of the adoptive family life that have been less considered and investigated in the literature.

Study 1 is focused on adoption during the first time spent together by the child and his/her parents. The common idea that a child who experienced neglect or was faced to an important separation would be disadvantage in developing a secure attachment relationship will be tested. Through a massive collection of data regarding the child's attachment behavior, the aim of study 1 was to analyze if and how the attachment relationship to the new caregivers develops during the first months of placement. This microgenetic observation allowed me to account for the rapid changes occurring in development during infancy.

Study 2 goes one step further in the adoption process. By taking advantage of the participation to an international research network, this study is aimed at analyzing another sensitive period, adolescence, in which important issues about the adoptive status arise. Study 2 will analyze, in pre-adolescence and adolescence, the role of pre-adoptive risk factors and protective factors on the adoptee's outcomes (i.e. attachment representation and behavioral problems). In this second study, attachment won't be considered just as an outcome, but possible interactions between the different attachment representations within the adoptive family (mother, father, adoptee) will be tested.

# 3. ATTACHMENT DEVELOPMENT IN A SAMPLE OF KOREAN-BORN ADOPTees

While studies identifying correlates of adoptee's adjustment serve the important function of furthering our understanding of the adoption phenomenon, a number of investigators have pointed out that there is a great need in the field to test more complex models of the adoptee's attachment that analyze predictors of his/her attachment relationships and representations. However, in order to identify the determinants that are implicated in attachment, we must be able to deeply understand how this bond develops in peculiar situations as those shared by the adoptive families.

This study focused on the first months of the adoptive family's creation. It was aimed at investigating how internationally adopted children develop an attachment bond to the new primary caregivers. The unique study analyzing the process of attachment in adoption, collected a total of 12 observations through biweekly data collections (Pugliese, et al., 2010). Nevertheless, we believed that a microgenetic analyses (that is observing within a shorter period of time though an elevated number of sessions), could deeper take into account the rapid changes occurring in development during infancy. Traditional research designs do not allow a direct observation of change while it is occurring, whereas microgenetic examination provides an in-depth analysis of children's behavior while it is changing. It is just analyzing and recognizing changes at the micro-level of real time, that it becomes possible to understand changes at the macro-level of developmental time (Lavelli, et al., 2005).

Specifically, Study 1 focused on the first phases of attachment development, analyzing microgenetically the attachment behavior shown by a homogeneous sample of 6 children (aged between 9 and 12 months) adopted by Northern Italian couples from South Korea. This specific sample was chosen for different reasons, first of all due to the peculiarities shared by Korean-born children, that will be deepened later.

These types of findings can help a reflection on the possible variables affecting the quality of attachment. Therefore, clinical practice (as well as prospective-parents training) could be ameliorated by focusing on the protective factors that facilitate the development of a more stable and secure attachment. For instance, children who experienced an abandon or a separation, need to feel and understand that the new parents won't leave them again, in order to develop more confidence toward the new caregivers (Roberson, 2006).

## **3.1. Specific literature review**

### **3.1.1. Specificities of the attachment development among adoptive families**

The early months of adoptive family formation are critical to the development of attachment bonds between children and their adoptive parents. The importance of this sensitive period has been underlined not only by psychologists, but also by many other professionals working with adoptive families (Dozier & Rutter, 2008; Schofield & Beek, 2006; Wilson, 2009). Despite the interest of the academic field towards attachment outcomes, specific tests and instruments aimed at evaluating this construct in the adoptive families have not been created yet. The different adoptive practices (domestic and inter-country) share a few peculiarities impacting on attachment that should be taken into account during its assessment.

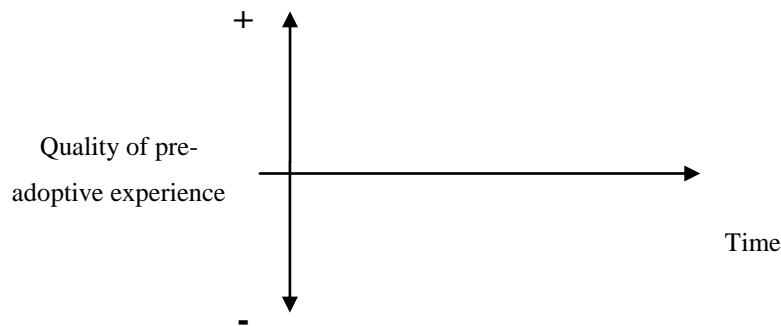
First of all, the time spent within the biological family (no matter how long) constitutes the primary basis for the development of the attachment toward primary caregivers: the adoptee and his/her adoptive parents do not share these first moments of relational experiences. Furthermore, every adoptive child has been reared by two or more caregivers, having experienced a rupture due to separation,

### 3. Attachment development in a sample of Korean-born adoptees

and consequently a discontinuity in the care and attachment experiences (Dozier & Rutter, 2008). Hence, when a child meets the adoptive parents, he/she has already collected his/her own “relational-baggage”. This background can be represented by two different *continuums* (see Figure 5): the first has to do with the length of every pre-adoptive experience of care, the second defines the quality of these experiences, ranging from positive to even traumatic ones.

Figure 5

*Pre-adoptive relational background*



The older the child is at placement, the more these diverse experiences have affected his/her IWMs of relationships.

The adoptee’s experiences and representations of attachment, in turn, impact on the attachment representations of the adoptive parents: as in biological families, the way the child reacts to caregiver re-activates the parent representation of attachment (Bowlby, 1969; Schofield & Beek, 2006). With this regard, Palacios and colleagues have found interesting data in a sample including internationally adoptive families (Palacios, Roman, Moreno, & Leon, 2009). Adoptive mothers, who had spent at least 9 months with their child (aged between 4 and 8 years old), appeared to be less secure than the biologically mothers of the control group ( $t = -2.715, p > .01$ ); moreover, the security score was lower for the adoptive mothers whose children were adopted at an older age ( $r = -.44, p < .05$ ). The authors have interpreted this difference as a consequence of parenting children with attachment disorders (Palacios, et al., 2009).

The attachment difficulties of the adopted child seem to play a role not only on his/her later adjustment, but also on his/her parent attachment representations. Therefore, the precocious evaluation of the adoptee's attachment would acquire even more importance, in order to propose an early intervention to help the family escaping from this circle of insecurity.

### **3.1.2. A particular sample: Korean adoptees**

Children adopted from Korea constitute a very peculiar sample of adoptees that in the present study was chosen due to different reasons. First of all, Southern Korea is one of the countries of origin in which the average age at placement is lower, and this is an important aspect with respect to the age range of applicability of the attachment measures. However, the age is not the unique variable making Korean born adoptees a homogeneous sample: the path followed by every child before his/her arrival in Italy is quite consistent, allowing to control for many of the pre-adoptive variables. Last but not least, due to the positive collaboration established with the Regional Agency for Inter-country Adoptions (ARAI, the unique Italian accredited body for international adoptions who collaborates with the Korean authority), it was easier to contact and follow these adoptive families.

In the following paragraphs, the reasons why Korean children are so popular in adoption research will be underlined, deepening also historical and political aspects lying behind this phenomenon.

The history of adoptions from this Asian country dates back to the Korean War period, with a large number of war orphans and Amerasian children adopted from couples and families within the countries who participated in the Korean War as members of the U.N. forces (U.S.A., Great Britain, Sweden, Norway, and former West Germany). This humanitarian purpose led to a well organized system for international adoptions that lasted over time, following the change of abandoned children, from the of the 1950's and 1960's, to the children born from unwanted pregnancies that increased along with the modern industrialization of the 1970's and 1980's. This network has constituted for years a response to a double need: on one hand the child demand from Western countries (which was in turn linked to legalized abortion, acceptance of single parenthood, and social aids), and

on the other hand the economic burden of caring for Korean abandoned children. Between 1976 and 1981, in the U.S.A. the proportion of Korean adoptees increased about 50% of all inter-country adoptions (Kim, 1995).

However, the International Olympics who took place in Seoul in 1988 constituted a turning point in this phenomenon. International press underlined the gap between the modernity of this country and the low investment on their abandoned childhood, causing guilty feelings among Koreans and reawaking their national pride. Consequently, Korean government began to discourage international adoption while promoting the domestic placement of abandoned children (Kim, 1995). Up to 1995, 80'000 children were estimated to be adopted from Korea just within the American boundaries. The over-a-million Korean born children adopted all over the world have gave birth to numerous associations pursuing information about their roots and personal histories.

### **3.1.2.1. Korean adoptee's adjustment**

Korean adoptees are often cited in adoption research for their adjustment outcomes, which often differ from those of other internationally adoptees.

A number of studies have reported that Korean-American adoptees have generally been healthier and better cared for prior to adoption. The positive health conditions of these children are due to the medical support offered during pregnancy and delivery to single-mothers and women with unexpected pregnancies (Kim, Shin, & Carey, 1999). Furthermore, once they are born, children are not reared in institutions before adoption, but often enter a foster-care system. In the previous chapters, effects of early institutional life have already been discussed. Foster-care upbringing has been proved to promote, among internationally adopted children, better growth and cognitive scores, compared to institutional rearing (L. Miller, Chan, Comfort, & Tirella, 2005). Children who were raised up in a foster-care environment had better measurements for height, weight, and head circumference at placement, and in 96.3% showed an age-expected cognitive level (*versus* the 88.3% of children who had previously resided in orphanages).

In early childhood, most of the studies focused on physical growth and language. Some results showed that Korean children better adjust than other inter-



country adoptees, whereas others underlined a low rate of learning difficulties, but since they appear to vanish with time, they are interpreted as an initial adjustment reaction.

Research focusing on later childhood and early adolescence focuses on school adjustment and performances. The rate of Korean adoptees who achieved above average school grades was higher than white and black adoptees and they showed a lower proportion of behavioral problems (Verhulst, Althaus, & Versluis-den Bieman, 1990a; Verhulst, et al., 1990b).

A recent Swedish study (Dalen et al., 2008) compared the cognitive and school level of non adopted, domestic and inter-country adopted adults, highlighting significant differences of Korean born adoptees with respect to other participants adopted from abroad. Korean adoptees more often had obtained a post-secondary education compared with the general population, whereas non-Korean and national adoptees less often had such an education at follow-up. A small group of Korean-American adoptees was compared with their adoptive siblings (who were biological children of the adoptive parents) with respect to their psychosocial adjustment. Korean adoptees have shown a very good behavioral adjustment, comparable to that of their non-adopted siblings (Kim, et al., 1999).

The better outcomes often shown by Korean adoptees can be linked to the emphasis given by Korean culture to the care of their children, and contemporarily to the large number of resources that Korea can offer in comparison with other countries of origin, that in the large majority can be considered developing countries.

Italy is still practicing international adoption in collaboration with South Korea, even if in very small numbers (6 to 8 adoptions each year, all in Northern-Western Italy). In comparison to other children, Korean adoptees share a very similar background (abandoned at birth and raised up in a foster care environment) and a very low age at adoption (ranging from 9 to 12 months of age). These conditions make Korean adoptees a unique homogeneous sample to test the attachment development in adoption through a microgenetic design.

### **3.1.3. Research questions and hypotheses**

This study is aimed at underlining the complexity of attachment behavior in the first period of adoptive placement. We expect that the richness of information collected through the PAD could underline the complexity of the attachment building even in a homogeneous sample of small children who share a very similar pre-adoption experience.

In accordance to Stovall and Dozier (2000) we suppose that three months can be a sufficient period of time to develop a stable pattern of attachment toward the new caregiver. For this reason we expect to find a higher variability of attachment behavior in the first days, in opposition to a more coherent profile in the last days of the PAD's fulfillment.

## **3.2.Method**

### **3.2.1.Study design**

The present study is part of a wider longitudinal research with 3 waves of data collection. The first wave (T0) is prior to the child's placement and is aimed at collecting data with respect to parents' attachment cognitions. The second wave (T1) immediately follows the child placement within the adoptive family and is aimed at observing the child's attachment behavior toward the new caregivers for the first 3 months. The third and last wave (T2) of data are collected 9 months after the child's placement (6 months after the end of T1), with respect to child's temperament (using the *Italian Questionnaires for Temperament, QUIT*) (Axia, 2002) and parental stress (using the *Parenting Stress Index – Short Form*) (Abidin, 1995). Since at present not all the subjects reached the time for the third wave of data collection, only T0 and T1 data will be considered in the present dissertation.

The present study has a microgenetic design, with daily data collection for 3 months. Microgenetic designs, indeed, require the analysis of a period of developmental change (the construction of a new attachment relationship), through a high density of measurements within this transitional period. Thus, observations

are much more condensed than the time intervals required for the developmental change to occur .

In the present study, daily observations of the child's attachment behavior were collected by adoptive parents through the fulfillment of the *Parent Attachment Diary* (PAD) (Dozier & Stovall, 1996), a measure expressly created to evaluate attachment in the specific field of adoption and foster-care. This observational tool is ecologically valid (observation is conducted by parents at home) and ethically appropriate, because it doesn't require forced separations from the caregiver, that in these children can easily reactivate the trauma of abandonment. In addition, its capacity of collecting repeated measures allows the researcher to test the process of attachment creation, as suggested by recent literature (Palacios & Brodzinsky, 2010).

Since the aim of our study was to analyze the *first interactions* and attachment behavior between the adoptive child and his/her caregiver *at the specific age of arrival*, no control group was used.

### **3.2.2.Participants**

The sample is composed of 6 international adoptive families who adopted a Korean-born child. Four adoptees are boys, 2 are girls. As previously anticipated, this children share a very similar pre-adoptive background: they all were born at term after non-risk pregnancies, abandoned at birth, and after a few weeks spent in a hospital nursery, they all have been cared by a foster-care mother. In two cases, children have experienced a further change in caregiving (3 changes instead of 2), due to problems occurred with the foster-care family that couldn't take care of the child anymore, and thus it had to be changed. In average, the age at adoption was 10.83 months of age ( $SD = 2.32$ ).

Table 4

*Demographics characteristics of children and their families (N=6)*

	M	SD	min	max	%
Age at adoption (months)	10.83	2.32	9	15	
Mother's age	40.67	3.20	37	45	
Father's age	41.00	3.10	36	45	
Gender (M )					66.7
Siblings					50

For half of the adoptive couples the Korean child is not the first-born, but in the family another child (biologically related to parents or adopted) was present. Thus, 3 of 6 children have siblings. Average age of adoptive parents at placement was 40.67 years old for mother ( $SD = 3.20$ ) and 41.00 years old for fathers ( $SD = 3.10$ ) (See Table 4). All the families shared a high socio-economic income and educational level (9 of 12 obtained a University degree, whereas the 3 parents remaining had a high school diploma), in lines with the requirements of the Korean adoption law.

Participant recruitment was carried out with the collaboration of the Regional Agency for International Adoption, in Torino (Italy). All the families waiting to adopt a child whose age was equal or lower than 36 months old were contacted by email, with a presentation of the research project signed by Prof. Paola Molina. Since couples adopting in Korea were all included in this age range, the project has also been presented directly by the researcher during the pre-adoptive parent-training. Exclusion criteria were: child's with Pervasive Developmental Disorder and/or significant developmental delay or neurological damage.

Participants were volunteers and did not receive any form of payment nor reimbursement. Informed consents were given to parents before collecting the data. Data were treated in an anonymous way: to each participant family I attributed a progressive code, storing the key connecting each family's name and code in a protected way.

### **3.2.3.Procedure**

The procedure included parental-reports of their attachment cognitions, and adoptee's attachment behavior. In addition, at T2 (9 months after placement) parents were asked to fill out self-reports questionnaires regarding child's temperament and parental stress. The parental attachment cognition was completed in a web format: the link to the protected web page was sent about one month before the departure to Korea, asking the mother and the father to complete separately the web Q-sort questionnaire. Ninety printed copies of the PAD were given to parents about one week before departure. In the same circumstance, parents were trained to use the questionnaire; a printed copy containing examples of correct and incorrect fulfillments was given as guide. Parents were asked to begin the PAD completion within two weeks from the meeting with the child. At least once a month every participant family was contacted by the researcher, asking if there were any questions about the PAD completion.

Data collection was conducted within the space of two years (2011-2012).

### **3.2.4.Measures**

#### **3.2.4.1.The *Parent Attachment Diary***

The Parent Attachment Diary (PAD) (Dozier & Stovall, 1997) has been created in order to assess in an ecological way, individual differences in infants' attachment behavior during stressful situations. Due to the ethical reasons underlined above, the PAD has been specifically created to measure attachment behavior in a foster-care environment.

Through daily observation, it allows the evaluation of the attachment process and development, and it provides much information about any significant change occurring in the child attachment behavior during time.

In the diary, parents are asked to recall three attachment relevant incidents that typically occur in any given day: times when the child is physically hurt, frightened, and separated from the parent. According to the authors, these situations are prototypical of the attachment system's activation in everyday life (Stovall & Dozier, 2000). For each incident, parents write a short narrative

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describing the situation and then report the sequences of the child's behavior on a check-list (for an example, see Figure 6).

Figure 6

*Example of PAD completion*

1. Think of one time today when your child got physically hurt and answer the following: (this includes anything like falling down, scraping a knee, bumping into something, etc.)

Describe this situation in 2-3 sentences (and be sure to include how you responded to your child): \_\_\_\_\_

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**A. What did your child do to let you know he/she was hurt? NUMBER YOUR CHILD'S REACTIONS, IN ORDER. ONLY PUT A NUMBER IF THE BEHAVIOR OCCURED.**

- \_\_\_ looked at me for assurance
- \_\_\_ went off by him/herself
- \_\_\_ acted as if nothing was wrong
- \_\_\_ acted angry/frustrated (ex. Stomped feet, kicked legs)
- \_\_\_ called for me
- \_\_\_ looked at me briefly then looked away and went on
- \_\_\_ came to me
- \_\_\_ signaled to be picked up or held, reached for me
- \_\_\_ cried
- \_\_\_ did not indicate he/she wanted or needed me
- \_\_\_ cried and remained where he/she was, did not signal for me
- \_\_\_ moved closer to me (but actual contact did not occur)

For incidents regarding the child's being hurt or frightened, parents indicate the child's initial help-seeking behavior (part A, see above, Figure 3), and the child's response to the parent's behavior (part B). For situations involving separations, parents report the child's reactions to the separation and then to the reunion.

The coding is based just on the behavior displayed by the child, whereas the narrative, and so the parental actions and interventions, don't have to be coded,

but they can be considered in order to verify and understand what happened. Child behavior are assigned to one of the following categories: proximity seeking/contact maintenance, ability to be soothed, avoidance, and resistance (Figure 7). Specifically, the first two categories concern secure attachment and they include behavior as going toward the parent, recalling his/her attention, signaling to be picked up or held and the ability to be easily soothed and to calm down without showing resistance.

### Figure 7

*Examples of PAD's items (for each attachment pattern)*

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#### Avoidance:

- Continued doing what he/she was doing before (didn't notice me)

#### Security:

##### Proximity seeking/contact maintenance:

- Signaled to be picked up or held, reached for me

##### Ability to be soothed:

- If upset, was easily soothed and calmed by me

#### Resistance:

- Did not easily let me hold him/her but remained upset (ex. arched back, put arm in between us)
- 

Avoiding behavior are coded when the child acts like if nothing was wrong, ignores the parent or go off by himself in times of need. The last category includes resistant behavior, when the child shows anger toward the parent (e.g. biting or pushing him/her away) and/or the incapacity of being comforted. Resistance is linked to the inability to be calmed by the caregiver, but if compared to avoidance, here the child shows the need of help, even if he is not able to accept the adult's aid or he cannot use it to calm down. On the opposite, avoidance always lacks on proximity seeking and contact maintenance. The PAD is not aimed at measuring disorganized attachment behavior directly. However, an early indication of attachment disorganization could be the low level of consistency with which infants rely on a particular behavior strategy when distressed.

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Daily scores of secure, avoidant and resistant behavior are reported by the researcher on a graph displaying their trend, which can be analyzed in different ways, from simple correlation with time (evaluating the change or stability over time) to sophisticated trend analyses (Taylor, 2000). PAD both allows the analysis on an individual level and the comparison of different subjects' trajectories. On a group level analysis, individual trajectories are then merged by hierarchical regression, to test different hypothesis on influent variables as age at placement or previous risk factors.

An overall diary pattern can be determined by examining significant differences in the rate of behavior reported (Stovall & Dozier, 2000). For example, infants with an avoidant diary pattern show significantly more avoidant behavior than both secure and resistant ones; thus, PAD allows the detection of a prevalent pattern, but meanwhile it also identifies the presence of different attachment behavior.

The PAD validation, described in the first published study using this measure (Stovall & Dozier, 2000), reports a complete inter-rater agreement for avoiding behavior, and high values even for secure (0.88) and resistant (0.86) ones. The validation study has been conducted on the diaries collected by 31 biological mothers and 11 foster-care mothers, with children aged between 8 and 20 months. Parents supplied 7 consecutive days of diary data and participated with their infants in the Strange Situation within 3 weeks (for the biological dyads) or 5 months (for the foster care dyads). SSP and PAD scores showed a good correlation, obtaining a significant concordance between parent and observer reports. Babies classified as avoidant in the SSP had significantly higher avoidance scores than secure and resistant children, and babies classified as resistant in the SSP had significantly higher resistance scores in the diary than secure and avoidant babies. Reciprocally, parents' ratings of secure behavior in the diary have been found to correlate positively with ratings of proximity seeking and contact maintenance, and correlate negatively with avoidance in the Strange Situation (Stovall & Dozier, 2000).

Further validation of the diary was conducted by comparing the overall means of secure, avoidant, and resistant behavior as measured in the diary with continuous Strange Situation scores (see Table 5). Security in the diary was



significantly correlated with Strange Situation proximity seeking scores,  $r(19) = .59$  ( $p < .01$ ), and contact maintenance scores,  $r(19) = .38$  ( $p < .10$ ). Secure behavior were negatively correlated with Strange Situation avoidance scores,  $r(19) = -.41$  ( $p < .05$ ). Avoidance in the diary was negatively correlated with Strange Situation proximity seeking,  $r(19) = -.69$  ( $p < .001$ ), and contact maintenance,  $r(19) = -.60$  ( $p < .001$ ), but positively correlated at .51 with avoidance in the Strange Situation ( $p < .05$ ). The correlation between resistance in the diary and resistant Strange Situation scores was not significant (Stovall-McClough & Dozier, 2004).

Table 5

*Correlations between the Parent Attachment Diary and the Strange Situation scales (adapted from: Stovall-McClough & Dozier, 2004)*

	Strange Situation scales			
	Proximity Seeking	Contact Maintenance	Avoidance	Resistance
Diary security	.590**	.377 $a$	-.410*	-.139
Diary avoidance	-.691**	-.604**	.509*	-.018
Diary resistance	.321 $a$	.302 $a$	-.270	.173

*Note:* Pearson correlation coefficients ( $N = 20$ )

$a$  Marginally significant at  $p < .10$ .

\*  $p < .05$ .

\*\*  $p < .01$ .

The analyses run by Dozier and Chase-Stovall on the foster care data on an individual level showed significant changes over time though the comparison between the 3 attachment behavior, and the emerging of a stable pattern of attachment (Stovall & Dozier, 2000) In a second study (Stovall-McClough & Dozier, 2004), the authors compared 38 dyads through Hierarchical Linear Models (HLMs) procedures (Bryk & Raudenbush, 1992), using the diaries collected during about 60 days. The aim was to examine the longitudinal data, estimating the trend of attachment relationship during time, and also taking into account some intervenient variables. Just a small percentage of the assessed variables were found to be associated with changes in attachment behavior over the first 2 months of placement. Neither age at placement nor foster parent attachment predicted change

over time, whereas risk factors suggesting child maltreatment may have subtle negative effects on the developing attachment.

The same statistical procedure was used by Pugliese and colleagues (Pugliese, et al., 2010), who evaluated the building of the attachment bond in a sample of 32 children adopted from China. They used an adaptation of the Parent Attachment Diary, an interview examining every two weeks the mothers' observations of their children's attachment behavior over the first six months following adoption. During this lapse of time with their families, adopted children entered an attachment-making phase, and showed an increase in secure behavior, and a decrease of avoidant ones, in response to pain, fear and separation (Pugliese, et al., 2010).

Since the PAD was specifically developed to detect the creation of an attachment bond in non-normative situations (the child meeting a new caregiver after having already experienced a different attachment relationship), no data are available with respect to normative population.

### ***The Italian version of the PAD***

The Italian translation of the PAD was revised by an English native speaker colleague. In order to test the comprehensibility of all the items, the same person used the PAD for a few weeks with his toddler child. Finally, the conclusive version of the instrument was discussed with Mary Dozier (personal communication, February 15, 2010). Inter-rater agreement between Mary Dozier's team and the Italian authors was calculated on 8 American diaries, obtaining a concordance of 98% on the coding of single items.

### **3.2.4.2. CaMir**

The CaMir (Pierrehumbert et al., 1996) is a self-report Q-Sort questionnaire for the evaluation, at a semantic representational level, of the individual's control strategies, in past and present relationships. In the present study it has been used in its Italian version (Molina, Critelli, & Pierrehumbert, 2007). The CaMir is composed of 72 items investigating the person's attachment experiences (in the

past with the family of origin, and at present with current attachment figures), his/her evaluations and interpretations, and his/her conceptions about family functioning. If compared to other attachment self-reports, the CaMir has the advantage of being administrable to participants regardless of the structure of their family. For instance, adults who grew up with only one parent or in different foster homes can answer the CaMir.

The Q-sort procedure requires the compiler to give a precise number of responses for each of the 5 levels of responses, following a bell-shaped distribution. This requirement of a forced distribution of each individual's answers noticeably reduces the socially desirable responses. The Q-sort answers are correlated with 3 Q-prototypes corresponding to the 3 control strategies created on the basis of both Main's and Kobak's contribution to the evaluation of adult's attachment (George, et al., 1985; Kobak, Cole, Ferenz-Gilles, Fleming, & Gamble, 1993). These 3 Q-indexes, ranging from -1.00 to +1.00, reflect the person's semantic evaluation of past and present experience of family relationships, expressed in terms of *primary* (secure/balanced) and *secondary* (deactivating or hyper-activating) strategies of emotion regulation. The 3 prototypes were defined by 4 experts (inter-judge agreement for each prototype was above  $r = 0.50$ ; after discussion, a consensus was decided for those items for which agreement was low). Measuring proximity of participants' scores at all the items to those of prototypes allows a finer assessment than that obtained with self-reports, often based on a few or sometimes even single items. In addition, continuous scales provide more analytic power than categories.

Individuals with a high 'secure/balanced' index typically describe their present family relationships as supportive, and interpret past experiences with acceptance, gratitude, or forgiveness. Subjects with a high 'deactivated' index tend not to trust members of their present family, and simultaneously value themselves as self-sufficient, independent, and emotionally controlled. When thinking about their past experiences, they generally express dismissal or derogation regarding, and their memories can involve either rejection, indifference or interference. Lastly, individuals with a high 'hyper-activated' index tend to feel excessively preoccupied for other members of the present family; they tend to express some

resentment concerning past experiences with memories that can involve either rejection or interference, nevertheless they tend to praise family values.

Internal consistency of the 72 items was = 0.81 ( $n = 804$ ), calculated on “free answers” given by subjects on the first step of their answering process (before the forced distribution<sup>14</sup>). Test–retest reliability at an interval of a few weeks (Intraclass Correlation Coefficient) was 0.97, 0.91 and 0.86, respectively for the secure/balanced, deactivating and hyper-activating Q-indexes ( $n = 26$ ).

The CaMir indexes are dimensional. As opposed to the AAI categorization system, it is conceivable, for a given subject, to receive high scores for both secondary strategies. The literature on the relationships between attachment questionnaires and the AAI report a relative inconsistency between instruments assessing adult attachment, when measures are methodologically and conceptually different (interviews and questionnaires) (Molina, et al., 2007). Many individuals have limited direct awareness of their attachment representations and strategies, so that self-report questionnaire cannot deepen this construct. The comparison between CaMir and AAI run by Miljkovitch and colleagues (unpublished data) showed a relatively high correlation ( $r = 0.47$ ,  $p < 0.001$ ;  $n = 55$ ) between hyper-activation and preoccupation confirmed the idea that the CaMir detects important aspects of secondary strategies. Other studies demonstrated the clinical relevance of secondary strategies, as measured with this instrument; the CaMir’s secondary strategies were shown to be associated with depression (Miljkovitch, Pierrehumbert, Karmaniola, Bader, & Halfon, 2005), drug and eating disorders (Miljkovitch, et al., 2005; Pierrehumbert et al., 2002) and child maltreatment or neglect (Molina, Casonato, & Sala, 2009).

For the present study, the electronic version of the instrument was used (the Web CaMir). Participants are asked to answer the questionnaire in a web page format instead of in the typical Q-sort cards format. Since the Italian standardization of the CaMir is still in progress (Molina, Casonato, & Sala, 2012), the French-speaking norms will be used as reference in order to calculate the standardized Q-indexes; T-scores (mean=50, DS=10) will be used.

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<sup>14</sup> It has to be noted that it is not possible to compute an  $\alpha$  after the forced distribution, since items are no longer independent

### 3.2.5. Methodological Consideration

Longitudinal studies are increasingly common in social sciences research, and constitute the method par excellence in developmental psychology. In longitudinal studies, subjects are measured repeatedly across time, and interest often focuses on characterizing their growth across time. Hierarchical Linear Models (HLMs) (Bryk & Raudenbush, 1992) have become the method of choice for growth modeling of longitudinal data. In adoption research, HLMs allow to test the change over time of psychological constructs.

A basic characteristic of these models is the inclusion of random subject effects into regression models to account for the influence of subjects on their repeated observations. These random subject effects describe each person's growth across time. In addition, they indicate the degree of subject variation that exists in the population of subjects. Since adoptive samples are often very heterogeneous (because every child brings at placement not only a baggage of personal characteristics, but also very different pre-adoptive histories), it is important to account for each adoptee's influence on the total sample growth across time.

A crucial point for the use of HLMs in longitudinal research with a great amount data collected is that subjects are not assumed to be measured on the same number of time points; thus, subjects with incomplete data across time are included in the analysis. The ability to include subjects with incomplete data across time is an important advantage relative to procedures that require complete data across time because by including all data, the analysis has increased statistical power, and because time is treated as a continuous variable in HLMs, subjects do not have to be measured at the same time points. This is useful for analysis of longitudinal studies in which follow-up times are not uniform across all subjects. In adoption, the moment of the child's placement depends on a variety of factors, from political to personal ones, so that it is difficult to begin a data collection with more than one family at the same time point.

Both time-invariant and time-varying covariates can be included in the model. Thus, changes in the outcome variable may be due to both stable characteristics of the subject (gender) as well as characteristics that change across

time (life events). In the belief that adoption itself is a process, it is important to account for time-varying covariates.

Finally, whereas traditional approaches estimate average change (across time) in a population, HLMs can also estimate change for each subject. These estimates of individual change across time can be particularly useful in longitudinal studies in which a proportion of subjects exhibit change across time that deviates from the average trend, even more so if the sample is constituted by a small number of subjects.

To better reflect how this model characterizes an individual's influence on his/her observations, we can represent the model in a hierarchical or multilevel form. For this, it is partitioned into the within-subjects (or Level 1) model, and the between-subjects (or Level 2) model.

The Level 1 model indicates that individual  $i$ 's response ( $y$ ) at time  $j$  is influenced by his or her initial level  $b_{0i}$  and time trend, or slope,  $b_{1i}$ .

$$y_{ij} = b_{0i} + b_{1i} x_{ij} + \varepsilon_{ij} .$$

The Level 2 model indicates that individual  $i$ 's initial ( $b$ ) level is determined by the population initial level  $\beta_0$ , plus a unique contribution for that individual  $v_{0i}$ .

$$b_{0i} = \beta_0 + v_{0i} ,$$

$$b_{1i} = \beta_1 .$$

The between-subjects, or Level 2, model is sometimes referred to as a "slopes as outcomes" model (Burstein, 1980). The hierarchical representation shows that, just as within-subjects (Level 1) covariates can be included in the model to explain variation in Level 1 outcomes ( $y_{ij}$ ), between-subjects (Level 2) covariates can be included to explain variation in Level 2 outcomes (the subject's intercept  $b_{0i}$  and slope  $b_{1i}$ ). This model can be thought of as a personal trend or change model because it represents the measurements of  $y$  as a function of time, both at the individual ( $v_{0i}$  and  $v_{1i}$ ) and population ( $\beta_0$  and  $\beta_1$ ) levels.

$$y_{ij} = \beta_0 + \beta_1 x_{ij} + v_{0i} + \varepsilon_{ij} .$$

The intercept parameters indicate the starting point, and the slope parameters indicate the degree of change over time. The population's intercept and slope parameters represent the overall (population) trend, whereas the individual parameters express how subjects deviate from the population trend. In the present study, the population parameters will refer to the group of Korean adoptees, whereas the individual parameters will refer to the individual deviation of every single child from the Korean group.

This model is identical to a one-way ANOVA with random effects and can be used to compute the proportion of variability in outcome scores (e.g., math achievement) that exists between Level 2 units (e.g., schools). The Level 1 model describes the *i*th participants' attachment behavior (secure, avoidant, resistant) as a function of the mean achievement score for the *j*th day ( $\beta_{0j}$ ) plus a residual ( $v_{ij}$ ) that reflects individual participant's differences around a given day mean. The Level 2 model describes each child's average attachment behavior scores (secure, avoidant, resistant) for a given day ( $b_{0j}$ ) as a function of the grand mean ( $\beta_{00}$ ) plus a day-specific deviation ( $v_{0j}$ ). The three parameters estimated by the combined unconditional means model include one so-called fixed effect (i.e., the grand mean,  $\beta_{00}$ ) and variance estimates for the Level 1 and Level 2 residuals. The SPSS syntax for the unconditional means model is shown below.

### 3.2.6. Data Analyses

Data analyses were carried out on longitudinal data collected up to July 2012 among Italian families who adopted a Southern Korean born child. Analyses were performed with PASW Statistics 18.0 (PASW Statistics, 2009).

Daily attachment scores were examined from the first day of fulfillment<sup>15</sup> through the first 3 months of placement. Multiple data points allowed analysis at a single subject level. Analyses involved graphical representation of diary data,

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<sup>15</sup> Which do not correspond to the first day of placement, but PAD completion usually begun 10 days later, once the whole family came back to Italy after the stay in South Korea

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examination of significant changes in attachment behavior over time, and statistical comparison of overall levels of each attachment behavior. For each child, a graph was created depicting the levels of secure, avoidant, and resistant behavior recorded across the 3 incidents across the diary each day. Proximity seeking and contact maintenance were summed to obtain a secure behavior score for each day. Because the maximum daily score for secure behavior differed from that of avoidant and resistant behavior, the 3 daily total were standardized. The 3 standardized scores for each day were then graphed to depict overall levels and changes over time in attachment behavior for each child. Missing data within a day diary (e.g. if separation situation was not reported) were accounted for by prorating the daily scores. Gaps seen in the data represent daily diaries completely missing<sup>16</sup> (e.g. the mother was ill and did not fulfill the diary) (Stovall & Dozier, 2000).

The development of a new attachment was examined by looking for increases and decreases in attachment behavior over time (e.g. an increase over time of secure behavior and a parallel decrease of resistant ones). Bivariate correlations have been tested between each attachment behavior daily score and the time variable, in order to detect any significant increase or decrease over time through the calculation of the Pearson's coefficient. Furthermore, in order to test in a more refined way the presence of specific trends, additional statistical methodologies were applied: the Change Point Analysis<sup>17</sup> (Taylor, 2000), and the Test-C<sup>18</sup> (Larcan & Cuzzocrea, 2006). Unfortunately, due to the presence of missing data, none of them appeared to be suitable for our purpose, thus they won't be reported.

An overall diary/individual pattern was determined by examining significant differences in the average rate of behavior reported. For instance, a child with an avoidant pattern showed significantly more avoidant behavior than

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<sup>16</sup> The reasons lying behind missing data are numerous: when a single day is missing usually the compiler was too tired, or spent just a few hours with the child so that no events had been observed. When more than one days was missing, mothers usually reported the child being ill, or the whole family going away from home on holiday.

<sup>17</sup> Change Point Analysis is capable of detecting subtle changes and provides confidence levels and confidence intervals.

<sup>18</sup> Test-C measures the likelihood with which the points of a time series are arranged randomly. If this probability appears to be lower than a critical value (arbitrarily set) it is concluded that there is a significant trend.



both secure and resistant behavior. In order to identify the prevalent pattern of attachment, T-test analysis was computed in two different forms. Firstly, the one-sample T-test was used to compare the general mean of attachment behavior with the mean of every single attachment behavior (respectively secure, avoidant, and resistant). Secondly, the paired-samples T-test was run in order to compare the three attachment behavior two by two.

Growth curve analyses were used to estimate the effects of the adoptive placement on child's attachment behavior over time. Analyses were performed with SPSS 18.0 (PASW Statistics, 2009). Growth curve analysis is a technique that can be used to model longitudinal change in repeated observations of a dependent variable (Duncan, Duncan et al. 1999) The growth curve analysis approach takes advantage of both structural equation modeling, which incorporates latent variables, and hierarchical linear modeling which allows random coefficients across individual developmental trajectories (Simons-Morton, Chen et al. 2004). Growth trajectory is often specified as a linear function of time, in which case contains two important unknown individual growth parameters: an intercept and a slope that determine the shape of individual true growth over time (Lenzenweger, Johnson et al. 2004). The intercept parameter represents the net elevation of the trajectory over time. The slope parameter represents the rate of change over time.

Furthermore, I estimated unconditional growth curve models using the parental CaMir strategies (primary vs secondary) as covariate: a significant result would reveal an association between paternal attachment cognitions and individual differences in the probability of developing a specific attachment behavior over time.

## **3.3. Results**

### **3.3.1. Parental attachment cognitions**

The attachment cognitions of every child's adoptive parents were measured through the Web format of the CaMir. Every participant pool of answers was correlated with the three prototypes of attachment produced by experts. Every Q-

index was standardized on the basis of the proposed norms and transformed in T scores (mean = 50, *SD* = 10) (See Table 6).

Table 6

*Parents' CaMir\**

	Mother			Father		
	Secure Autonomous	Avoidant	Preoccupied	Secure Autonomous	Avoidant	Preoccupied
Child 1	33.3	60.6	64.0	54.4	38.3	39.5
Child 2	57.8	45.6	39.2	60.0	45.6	38.1
Child 3	59.4	38.3	47.8	56.9	40.4	44.7
Child 4	58.4	41.6	44.0	58.4	49.5	39.5
Child 5	54.9	53.0	35.1	57.6	50.5	43.0
Child 6	31.1	59.6	73.3	48.7	45.9	54.0

*Note:* \*Q indexes expressed in T scores (M=50, SD=10) standardized on the French-speaking normative sample

In the following single subject analysis, parental attachment cognitions will be described individually for each child.

### 3.3.2. Single subjects graphical representation

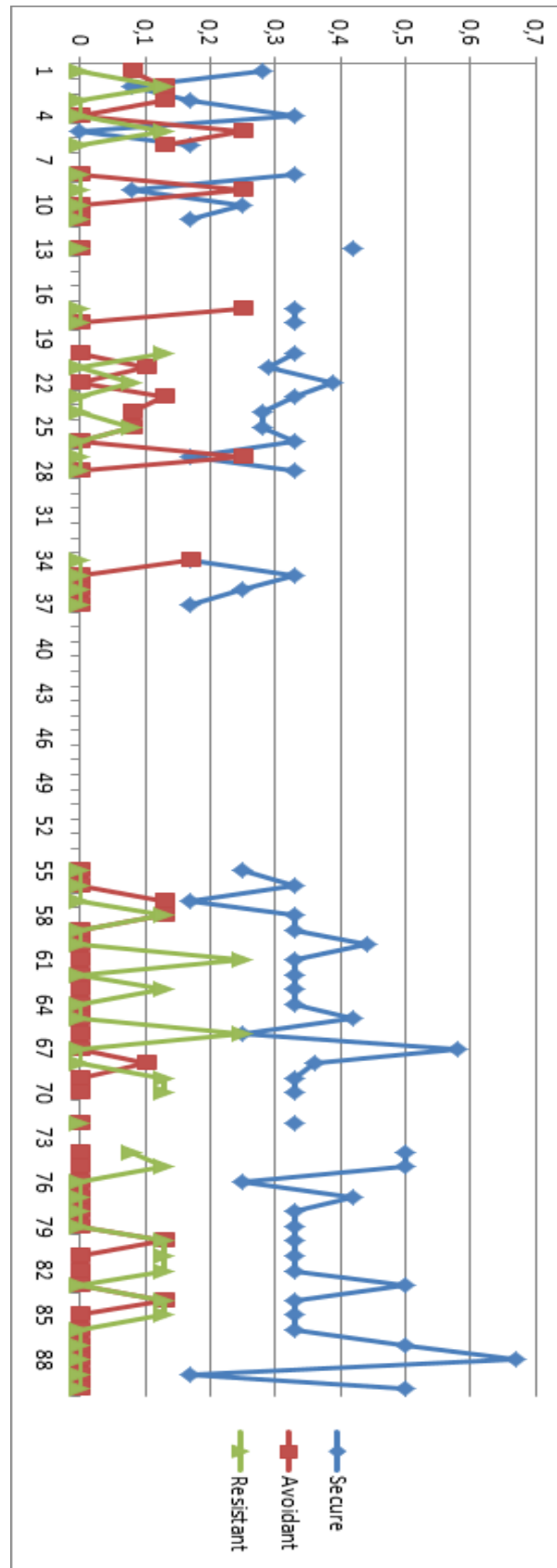
#### 3.3.2.1. Child 1

Child 1 was placed in the adoptive family, who already had a biological daughter, at the age of 9 months old. At the CaMir, his adoptive mother showed a higher correlation with the preoccupied ( $T = 64.0$ ) and dismissing ( $T = 60.6$ ) profiles, whereas his father showed a secure/autonomous attachment cognition ( $T = 54.4$ ).

During the 3 months of the study, family of Child 1 fulfilled a total of 57 diaries, the remaining days were completely missing. Through the analysis of the graphical representations of the attachment behavior standardized scores, the first ten days show a very intricate distribution, whereas from the third week secure behavior look higher than resistant and avoidant ones. The second month is almost completely missing, and from the 55<sup>th</sup> day a stable pattern of responses appears constituted, with secure behavior considerably higher than avoidant and resistant (see Figure 8).

Figure 8

Child 1 graphical representation of PAD scores

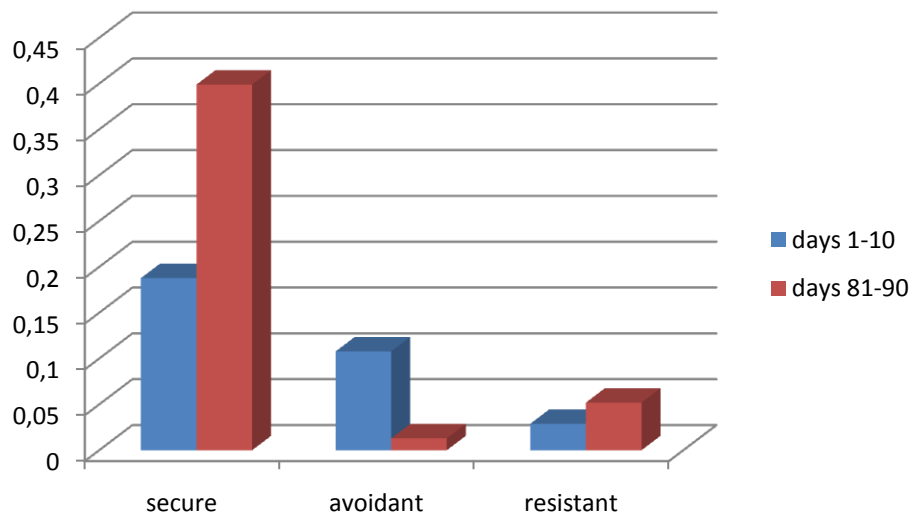


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By comparing the mean scores of the first and last ten days of PAD completion, an increase in secure behavior is clearly shown. Insecure behavior are considerably lower, and avoidant ones noticeably decrease in the last 10 days (see Figure 9).

Figure 9

*Child 1 first and last days of PAD completion*



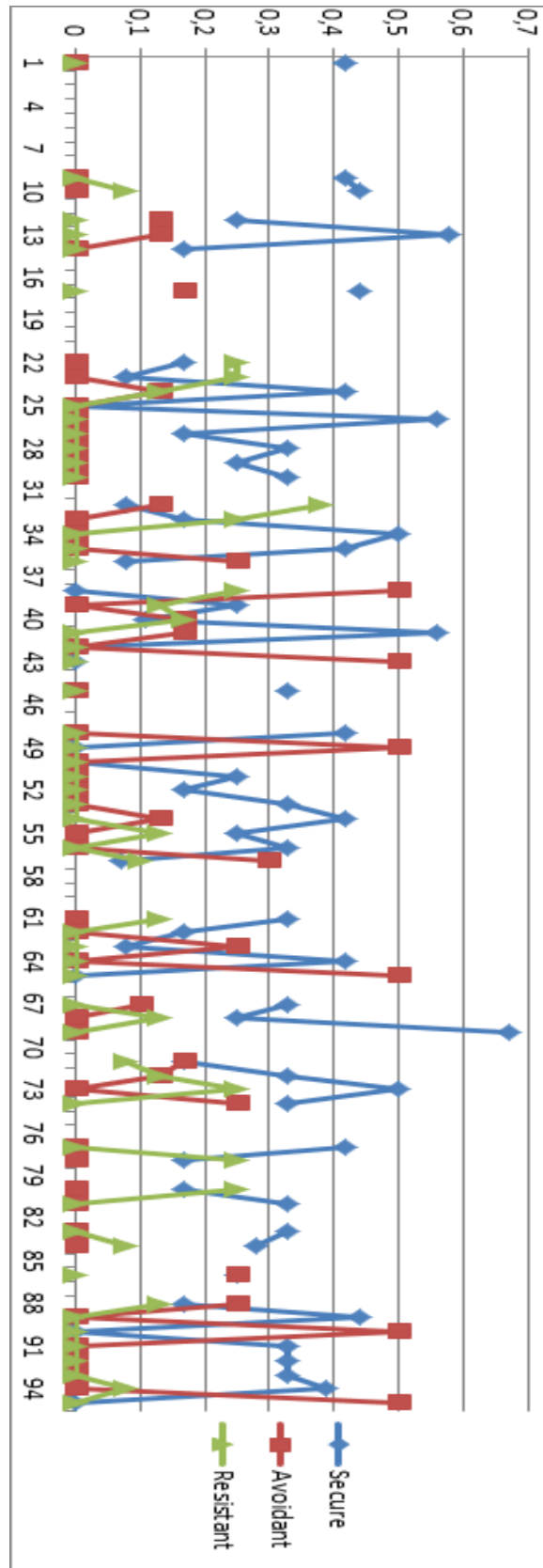
#### 3.3.2.2. Child 2

Child 2 was a little girl adopted at the age of 9 months by an Italian couple with no other children. Her adoptive mother and father obtained at the CaMir a prevalent secure-autonomous Q-score ( $T = 57.8$  and  $60.0$ , respectively).

During the first 3 months of placement, 60 diaries have been fulfilled. The remaining 30 days were constituted of missing diaries, distributed especially during the first days. Throughout the whole period of PAD completion, high scores of secure and avoidant behavior are shown contemporarily. At the same time resistant behavior are not absent, even if with lower scores (see Figure 10).

Figure 10

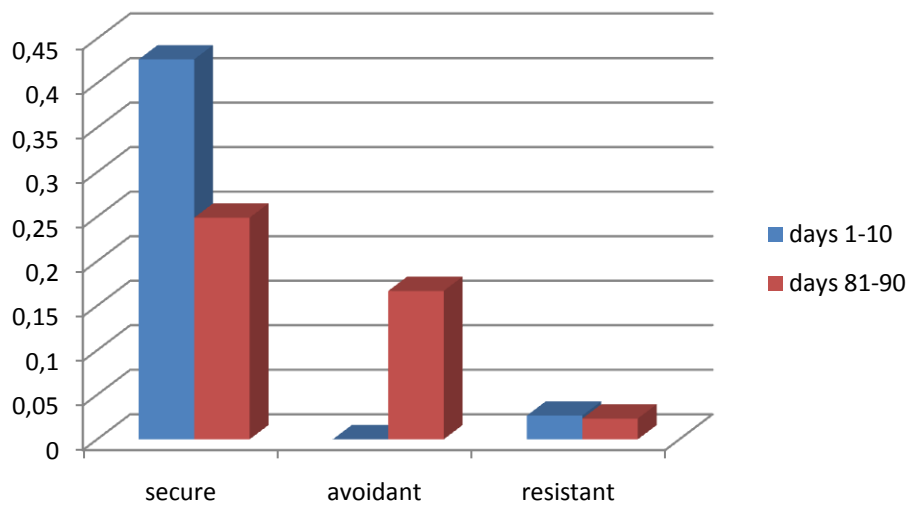
Child 2 graphical representation of PAD scores



The direct comparison of the first and last 10 days of diary completion underlines a major decrease of secure behavior, parallel to an increase of avoidant ones, though significantly lower. Resistant behavior's scores are very low and do not differ from the first and last days of PAD fulfillment (see Figure 11).

Figure 11

*Child 2 first and last days of PAD completion*



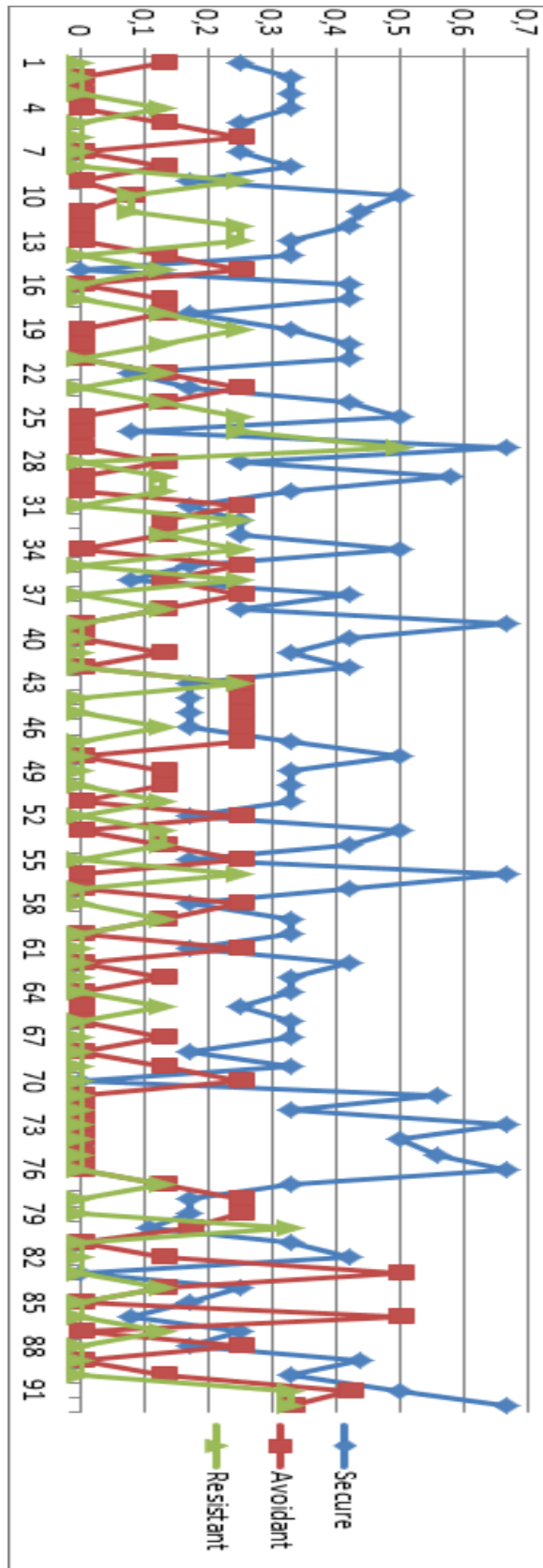
### 3.3.2.3. Child 3

Child 3 was adopted by an Italian couple with no other children and he was 10 months old at placement. Child 3's adoptive mother and father obtained at the CaMir a prevalent secure-autonomous Q-score ( $T = 59.4$  and  $56.9$ , respectively).

The PAD completion was carried out very precisely, leading to a total number of 92 diaries, with no missing days. For the first 75 days secure behavior's scores appear to be higher than insecure ones (see Figure 12). Avoidant and resistant behavior, however, seem more fluctuating: Child 3 sometimes showed higher avoidant behavior, whereas from time to time resistant behavior were higher, especially from day 43 to 75. In the last 15 days of PAD completion, the graphical representation shows a change, with an important decrease of secure behavior and considerably higher avoidant scores. Finally, the last two days show a new rise of secure behavior (see Figure 11).

Figure 12

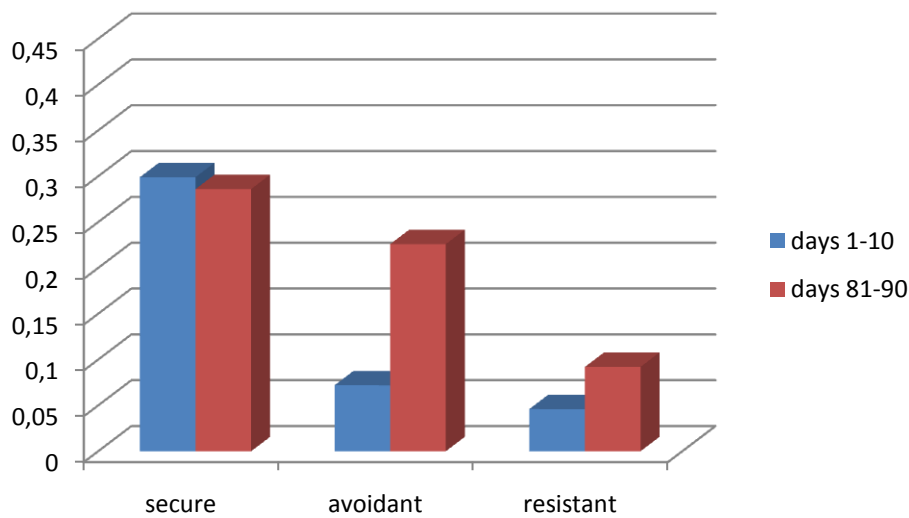
Child 3 graphical representation of PAD scores



The direct comparison of the first and last ten days of diary fulfillment does not underline the great variability as the graphical representation does. Security behavior are higher than insecure ones, and they don't change. On the contrary, both avoidant and resistant behavior increase between the first and last days of diary completion. Avoidant attachment, particularly, drastically increase in the last ten days (see Figure 13).

Figure 13

*Child 3 first and last days of PAD completion*



#### 3.3.2.4. Child 4

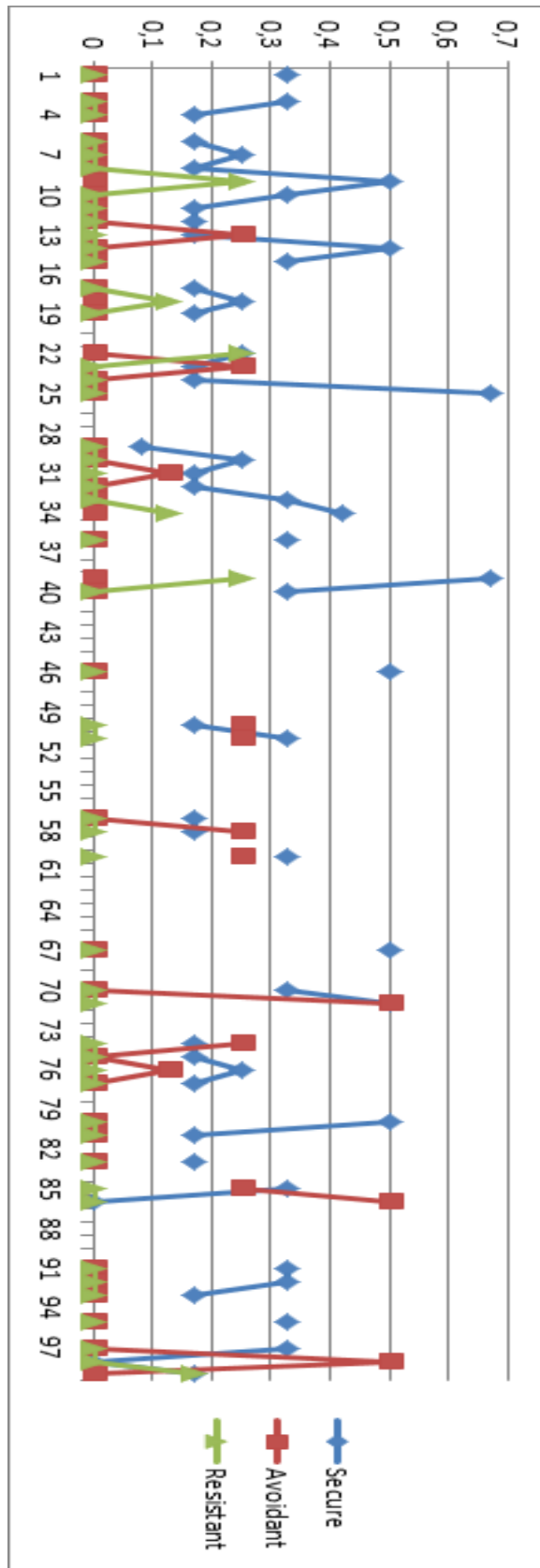
Child 4 was a 10 months old girl when she was placed in her adoptive family, in which she found an older brother, biological son of the adoptive couple. Before adoption, she had changed two different foster families because of health problems of the first foster mother that impede her to continue her job. Both the adoptive parents of Child 4 showed at the CaMir Q-scores a prevalent secure-autonomous profile ( $T = 58.4$  for mother and father).

The attachment observations of Child 4 were scarcer than those of other children (43 daily diaries *versus* 46 missing ones). The first 40 days of PAD completion show a higher level of secure behavior, with resistant and avoidant ones usually equal absent, even if in about 5 days they increase notably. After the



40<sup>th</sup> daily diary, it is difficult to examine the graphical representation of attachment behavior due to the high percentage of missing observations. Besides, it can be underlined an absence of resistant behavior parallel to a presence of secure attachment, whose score are sometimes over passed by avoidant ones (see Figure 14).

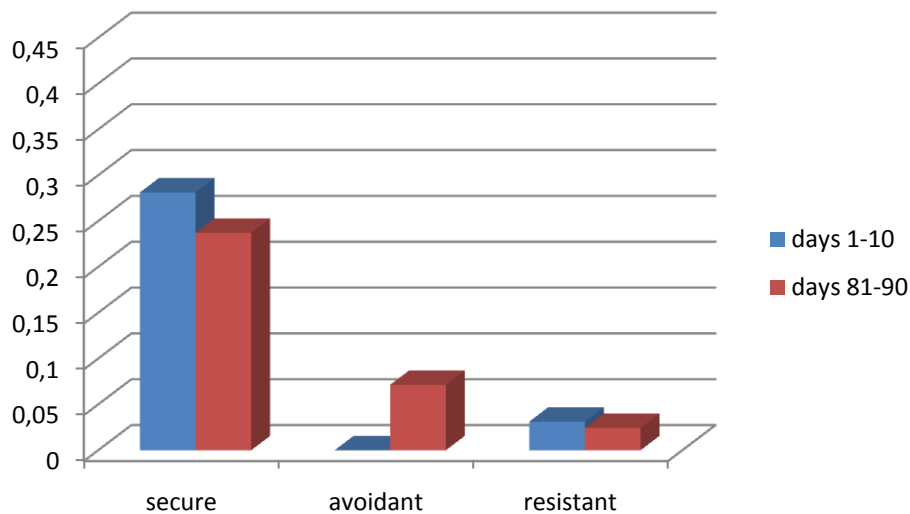
Figure 14  
 Child 4 graphical representation of PAD scores



By comparing the first and last ten days of diary completion, no major differences are underlined in Child 4. Secure behavior remain quite stable and considerably higher than insecure ones. Avoidant behavior are almost absent in the first part, whereas they increase during the last ten days (see Figure 15).

Figure 15

*Child 4 first and last days of PAD completion*



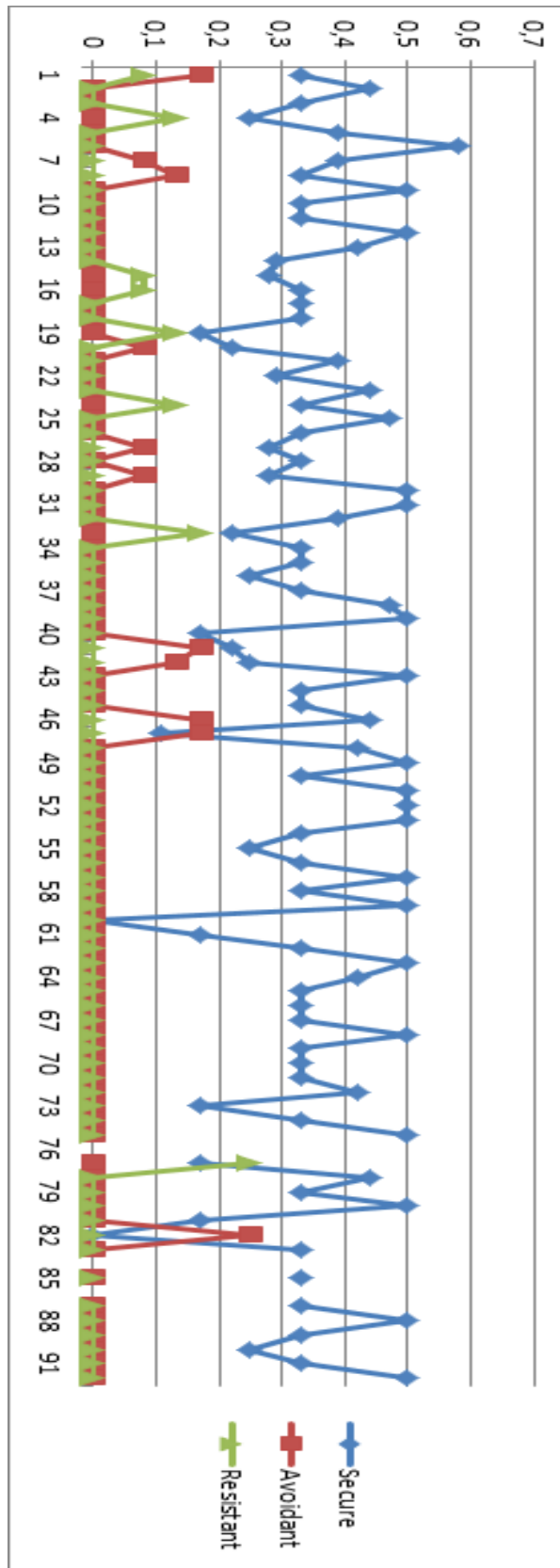
### 3.3.2.5. Child 5

Child 5 was adopted at the age of 12 months by a couple with no other children. At the CaMir, the parents showed a prevalent secure/autonomous profile ( $T = 54.9$  for mother and  $T = 57.6$  for father), even though both of them scored high even on dismissing profile ( $T = 53.0$  for mother and  $T = 50.5$  for father).

The diary fulfillment lasted 92 days, with just 3 daily diaries missing. The attachment behavior shown by Child 5 are very stable throughout all the three months of completion. Secure behavior are notably higher than insecure ones, resistant behavior are nearly absent and avoidant attachment is low and concentrated on the first half of the whole period. The only exception to this tendency is located around the 80<sup>th</sup> day, with a decrease of secure attachment behavior and a parallel increase of avoidant ones, lasting just 3 days (see Figure 16).

Figure 16

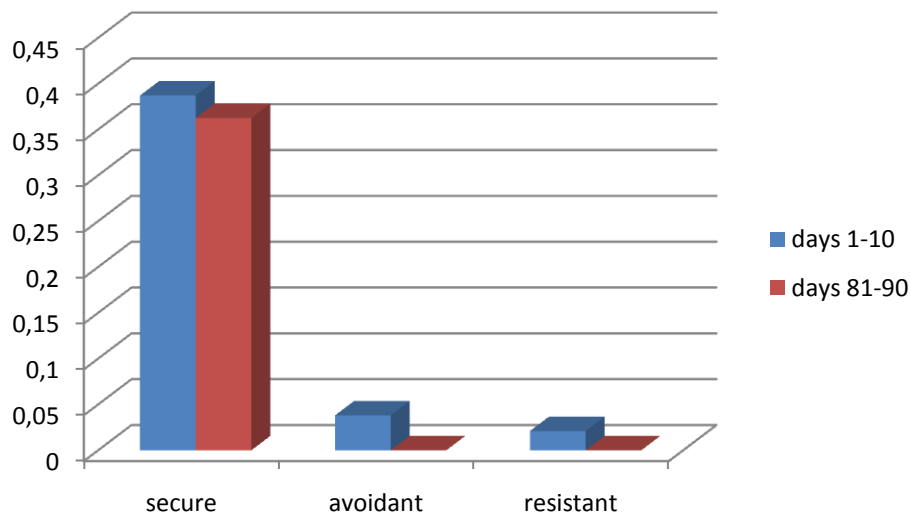
Child 5 graphical representation of PAD scores



The comparison of the first and last ten days of diary completion shows a predominance of secure behavior, which score drastically higher than insecure ones. Avoidant and resistant behavior are very low and do not change much between the first and last ten days (see Figure 17).

Figure 17

*Child 5 first and last days of PAD completion*



### 3.3.2.6. Child 6

Child 6 is a boy adopted by an Italian family including mother, father and their biological daughter. In comparison to other families of the sample, Child 6 was a slightly older at placement (15 months old). Like Child 4, he was placed in two different foster care families before adoption. This change was due unknown to personal reasons of the first foster care family. At the CaMir, the adoptive mother showed a high correlation with the preoccupied profile ( $T = 73.3$ ), but also with the dismissing one ( $T = 59.6$ ). The father highest Q-index was that of preoccupied profile ( $T = 54.0$ ).

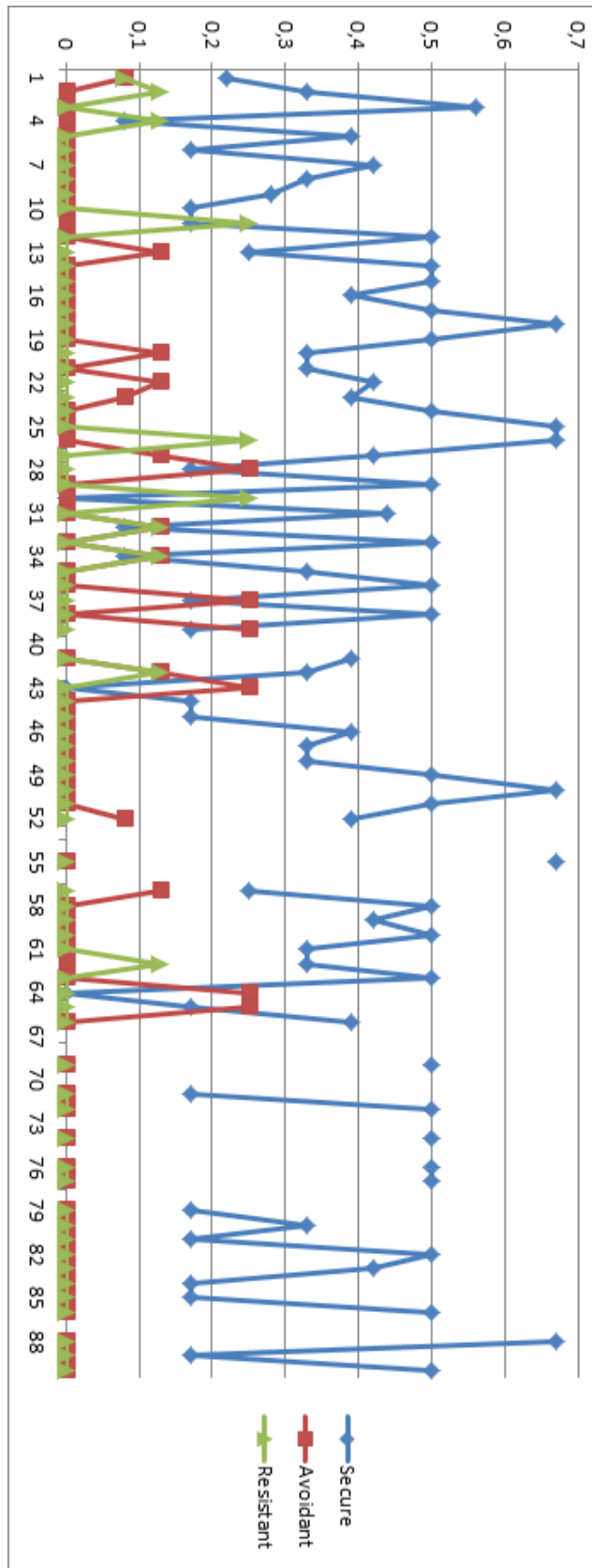
The diary completion was quite regular and included just 11 missing diaries distributed in the second half of the whole period. The graphical representation shows a regular tendency with higher secure behavior, avoidant attachment sometimes present but lower, and resistant attachment almost absent. At the

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beginning of the second month (from the 30<sup>th</sup> to the 45<sup>th</sup> day) and during the first days of the third month the graph shows an increase of insecure behavior (especially avoidant ones) parallel of a decrease of security. From day 69, a stable pattern of attachment is shown, with a complete absence of insecure behavior and high secure attachment scores (see Figure 18).

Figure 18

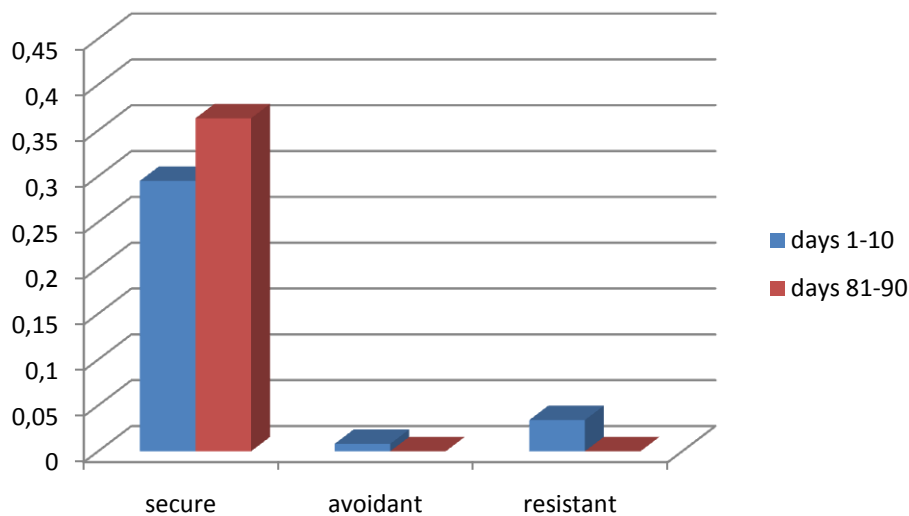
Child 6 graphical representations of PAD scores



Child 6 shows a clear predominance of secure behavior in the direct comparison of the first and last ten days of diary completion, with a further increase creases in the last days (see Figure 19).

Figure 19

*Child 6 first and last days of PAD completion*



### 3.3.3. Descriptive results of the whole sample

#### 3.3.3.1. Graphical representations

On the whole, the analysis of graphical representations shows that three of the 6 children in the sample (Child 1, 5, and 6) seem able to establish a stable pattern of attachment behavior within the three months after inter-country adoptive placement. All this 3 children show a prevalence of the secure attachment (Child 5 and 6 report a complete absence of insecure behavior in the last period of time). In two cases (Child 2 and 3) the three months' lapse do not allow the detection of a stable pattern of attachment behavior. In the lasting case (Child 4) the high rate of missing diaries makes the graphical representation hard to comment.

The direct comparison between the first and last ten days of diary completion highlighted a predominance of the secure attachment behavior with respect to insecure ones, both in the first and last period of PAD fulfillment.



Secure behavior remain quite stable except for Child 1, who shows a noticeable increase, and in Child 2, who on the contrary shows a marked decrease. Avoidant behavior considerably increase in one adoptee (Child 3), and less considerably in two other children (2 and 4). Lastly, resistant behavior are less represented (except in Child 3, whose scores doubled between the first and last ten days of diary completion).

### 3.3.3.2. Prevalent attachment behavior analyses

In order to detect what was the most represented pattern, the mean score of each type of attachment behavior (respectively secure, resistant, and avoidant) was calculated, using the daily scores of the whole period. Moreover, these three values were used to calculate a global mean, indicating for each child the average level of all the attachment behavior shown during the first months after placement.

Afterwards, through the T-test analysis, I compared these means in order to detect any significant difference between them. Firstly, the global mean score was used as the reference value in the unique sample T-test, indicating if each pattern's mean was significantly higher or lower than the average level of behavior shown. This comparison highlighted that secure scores are significantly higher ( $p < .001$ ) for every child, whereas avoidant and resistant are in all cases significantly lower ( $p < .05$ ) (see Table 7).

Table 7

*Unique sample T-Test*

	T-test value			Global mean (used as test value)	DF
	Secure	Avoidant	Resistant		
Child 1	7.639***	-2.746**	-11.337***	.121	53
Child 2	7.008***	2.588*	-7.621***	.143	64
Child 3	7.931***	-4.696***	-8.177***	.167	91
Child 4	21.408***	-8.632***	-10.298***	.133	56
Child 5	18.309***	-21.348***	-26.653***	.127	88
Child 6	11.578***	-12.544***	-18.439***	.139	78

*Note: \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$*

In order to compare the three patterns' mean, two by two, a paired sample T-test analysis was used. Results, reported in Table 8, show a significantly higher rate of secure behavior with respect with avoidant and resistant patterns ( $p < .001$ ), in all the 6 families. On the contrary, just one child (Child 4) showed a significant difference between the two insecure patterns, with a higher rate of avoidant behavior than resistant ones ( $t = 2.16, p < .05$ ).

Table 8

*Paired sample T-Tests*

	Secure M (SD)	Avoidant M (SD)	Resistant M (SD)
Child 1	0.31 (0.11) <sup>a,b</sup>	0.05 (0.08) <sup>a</sup>	0.04 (0.07) <sup>b</sup>
Child 2	0.28 (0.16) <sup>a,b</sup>	0.09 (0.16) <sup>a</sup>	0.06 (0.09) <sup>b</sup>
Child 3	0.32 (0.16) <sup>a,b</sup>	0.11 (0.12) <sup>a</sup>	0.07 (0.11) <sup>b</sup>
Child 4	0.27 (0.15) <sup>a,b</sup>	0.07 (0.14) <sup>a, c</sup>	0.02 (0.06) <sup>b, c</sup>
Child 5	0.35 (0.12) <sup>a,b</sup>	0.02 (0.05) <sup>a</sup>	0.01 (0.04) <sup>b</sup>
Child 6	0.36 (0.17) <sup>a,b</sup>	0.03 (0.07) <sup>a</sup>	0.02 (0.06) <sup>b</sup>

*Note: values sharing the same superscript (a,b,c) are significantly different ( $p < .05$ ) one to each other*

Overall, T-test analyses showed a predominance of secure behavior in the whole sample. No significant differences were detected between the two insecure behavior (avoidant and resistant), except for Child 4, whose avoidant scores were significantly higher.

### 3.3.3.3. Correlation analysis

Correlation analyses (Table 9) once again underlined the high variability of the individual trends. When considering the whole period of time, only one family (Child 1) showed a significant increase of secure behavior ( $r = .541, p < .01$ ), parallel to a decrease of avoidance ( $r = -.409, p < .01$ ). On the contrary, two families (Child 3 and Child 4) reported a significant increase of avoidant scores ( $r = .234, p < .01$ ;  $r = .423, p < .05$ ). Just one child (Child 6) showed a significant decrease of resistant behavior ( $r = -.245, p < .05$ ).

Table 9

*Correlations between attachment behavior scores and time (Pearson's R)*

	Secure	Avoidant	Resistant
Child 1	.541**	-.409**	.275
Child 2	-.064	.080	.047
Child 3	.015	.234**	-.134
Child 4	-.016	.423*	-.177
Child 5	-.115	-.077	-.130
Child 6	.033	-.074	-.245*

The same correlation analysis was used separately in each month of diary fulfillment, in order to detect if the correlation with time variable was positioned in a specific period of time within the whole period (Table 10). The increase of secure behavior previously shown by Child 1 seems related to a significant growth of secure scores during the first month ( $r = .470, p < .05$ ). On the contrary, the increase of avoidant behavior shown by Child 3 and 4 are attributable to different period of time, respectively the third and second month of PAD completion ( $r = .399, p < .01; r = .635, p < .05$ ).

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Table 10

*Correlations between attachment behavior scores and time, for each month (Pearson's R)*

	1st month	2nd month	3rd month
<u>Secure</u>			
Child 1	.470*	.498	.109
Child 2	-.332	.050	.088
Child 3	.176	.169	.097
Child 4	-.052	-.185	-.356
Child 5	-.157	.016	-.193
Child 6	.236	.379	.077
<u>Avoidant</u>			
Child 1	-.119	-.036	.175
Child 2	-.194	-.075	-.165
Child 3	-.065	-.150	.399*
Child 4	.133	.635*	-.031
Child 5	-.140	-.061	.249
Child 6	.319	-.254	-.341
<u>Resistant</u>			
Child 1	-.073	.285	-.166
Child 2	.119	-.448*	.157
Child 3	.400*	-.190*	.404*
Child 4	.067	-.247	.363
Child 5	-.103	-.268	.111
Child 6	.039	-.361	-.291

The analysis of separate correlations for each month allowed underlining a great variability in resistant behavior of Child 3, not detected by the previous analysis. The first month is characterized by an increase of resistant behavior ( $r = .400, p < .05$ ), which are slightly reducing during the second month ( $r = -.190, p < .05$ ), to increase once again during the last period ( $r = .404, p < .05$ ). Lastly, Child 2 showed a significant decrease of resistant behavior during the intermediate period of PAD completion ( $r = -.448, p < .05$ ), not highlighted by the previous overall correlation.

To summarize, Child 1 showed an increase of security in the first month and a general decrease of avoidance during the whole period. Child 3 and 4 increased their rates of avoidant behavior after the second month. Besides, Child 3' resistant behavior moved up and down during the three months. Lastly, the same behavior showed an overall decrease over time in Child 6.

In conclusion, correlation analyses showed a double variability: on one hand between the children in the sample, on the other hand within each subjects during the three months of diary completion.

### 3.3.4. Hierarchical Linear Models (HLM)

Explorative analyses underlined the large variability that lies behind the attachment behavior during the first months in the adoptive family. When behavior are examined over a long time, it is unlikely that change will be regarded as stable and linear. Through HLM I tested the growth trajectories of Korean-adopted children's attachment behavior as reported by their mothers. Since the standardized daily scores of PAD are constituted by very small numbers (ranging from 0 to .70), in the HLM procedures they all have been multiplied by 100 in order to make the parameters' coefficients readable.

Analytical models were run separately for each outcome behavior (secure, avoidant, resistant) not only to allow the detection of different trends for each behavior, but also to avoid problems with multi-co linearity. Since the model's convergence was not achieved for secure behavior, which constituted one of the three HLM tested, its model fit was uncertain and thus results won't be reported. Thus, I will focus on the two HLMs whose convergence was achieved, constituted by avoidant and resistant behavior' analysis.

With respect to avoidant behavior (see Table 11), intercept parameter ( $\beta_0$ ) was estimated to be significant (4.57,  $p = .009$ ), so that the average level of avoidant behavior at baseline is significantly different from zero: at placement, children show avoidant behavior in stressful situations, even if their rate is low. On the contrary, slope parameter ( $\beta_1$ ) was not estimated to be significant ( $p > .05$ ), thus we cannot conclude that the rate of improvement of avoidant behavior is significantly different from zero in this study.

Table 11

*HLM results for Avoidance random trend model*

Parameter	ML estimate	SE	z	p
$\beta_0$	4.57	1.08	4.24	.009
$\beta_1$	.033	.034	.97	.372
$\sigma^2_{u_0}$	1.05	4.38		.811
$\sigma^2_{u_0 u_1}$	-.02	.11		.844
$\sigma^2_{u_1}$	.00	.00		.235
$\sigma^2$	109.33	7.51		.000

Variance parameter shows that, for an initial intercept value of 4.57; the estimated population standard deviation is 1.02 ( $=\sqrt{1.05}$ ), which represent a small variability in the initial avoidant behavior. Even if not significant, the average population slope ( $\beta_1$ ) shows that each single day avoidant behavior are estimated to increase of .033; the parameter indicating the individual variation for this slope ( $\sigma^2_{u_1}$ ) was not significant ( $p = .235$ ), meaning that it was not possible to estimate the individual contribution to the slope. The variance parameter ( $\sigma^2$ ), estimated to be significant ( $p = .000$ ), was very high, meaning that in this model there is a great variability attributed to intercept variance, slope variance, and their covariance.

The second and last model fit to the PAD data corresponds to resistant behavior (see Table 12). Intercept parameter ( $\beta_0$ ) was estimated to be significant (4.80,  $p = .009$ ), so that the average level of avoidant behavior at the beginning of diary completion significantly differs from zero, even if the rate of resistant behavior show is very low. On the contrary, slope parameter ( $\beta_1$ ) was not estimated to be significant ( $p = .219$ ), thus we cannot conclude that, as for avoidant behavior, the rate of improvement of resistance is significantly different from zero in this study.

Table 12

*HLM results for Resistance random trend model*

Parameter	ML estimate	SE	z	p
$\beta_0$	4.80	1.30	3.70	.009
$\beta_1$	-.02	.02	-1.38	.219
$\sigma^2_{u_0}$	6.94	5.63		.218
$\sigma^2_{u_0 u_1}$	-.05	.06		.483
$\sigma^2_{u_1}$	.00	.00		.539
$\sigma^2$	56.68	3.90		.000

Variance parameter shows that, for an initial intercept value of 4.80, the estimated population standard deviation is 2.63 ( $=\sqrt{6.94}$ ). Differently than avoidant behavior, that were more homogenous at departure, resistance shows a considerable variability in its initial behavior. Even if not significant, the average population slope ( $\beta_1$ ) shows that each single day resistant behavior are estimated to slightly decrease (-.02); since the estimated parameter for individual slope variation ( $\sigma^2_{u_1}$ ) was not significant ( $p = .539$ ), it was not possible to estimate the individual contribution to the slope. The variance parameter ( $\sigma^2$ ), is again very high (even if lower than the avoidance one), meaning that even in resistance model there is a great variability attributed to intercept variance, slope variance, and their covariance.

In order to understand if the number of changes in caregiving experience before adoption, and the adoptive mother's attachment cognitions enhanced or hindered the development of secure behavior, HLMs with group effect were tested. The contribution of these two variables to the final rating of each attachment behavior (in their initial level or their change over time) was examined but model's convergence was not achieved. Since mothers represented the primary caregiver in the whole sample, and since their attachment cognitions did not appear to play a role, group effects based on fathers CaMir strategies were not even tested.

In conclusion, HLM were not capable of significantly estimating a population trend, and the individual variability related to it. Even if the sample is homogeneous, the variability brought by each child is high.

### **3.4. Discussion**

Due to the nature of the PAD, an instrument that was developed in order to detect attachment behavior in non-normative situations (i.e. foster-care and adoption), no comparisons can be done with behavior shown by children born and raised within the same family. Aim of the present study was to analyze what type of attachment behavior internationally adoptive children show in daily situations of distress, and how these behavior change over time.

The microgenetic method allowed to highlight the complexity of attachment development in the first months of adoptive placement, underlying the co-occurrence of different attachment behavior within the same child. Multiple data points showed that for most of the children, especially in the first observations, security was not the unique attachment strategy employed. This result underlines the complexity of their relational adjustment to the new caregiver, and leads a reflection about the correct timing for attachment evaluation in adoptive samples, which shouldn't be measured (if just once) at a short distance from the arrival of the child in his/her new family. Further studies could focus on the possible order or sequence in which different attachment behavior occur.

Generally, the graphical analyses of multiple data points underlined a predominance of the secure attachment behavior with respect to insecure ones, throughout almost all the PAD fulfillment; this qualitative result was also confirmed among all children by T-test analyses. The prevalence of secure behavior can be interpreted as a good prognostic index for the future attachment relationships that these children will develop toward important adults. This positive outcome can be due to the characteristics of the children's adoptive history, which can be considered at low risk. As a matter of fact, they have been adopted around their first birthday, which in Italy constitutes a very early adoption (the actual average age at placement is 6 years old; CAI, 2013). Moreover, during their first year of life they have not been exposed to deprivations and maltreatment, being reared in a family environment, so that a selective attachment relationship could have already have been formed toward their foster-care mother. Since the percentage of acceptance was almost of 100% among families who adopted in



South Korea, it is not likely that this positive result could be linked to a selection bias.

The fact that no significant differences were detected between the two insecure behavior (avoidant and resistant), except for one child, can be due to multiple reasons. First of all, insecure scores in the sample were generally very low (significantly lower than secure ones), making harder the detection of significant differences. However, this non-significant differentiation between avoidance and resistance can be also due to a limitation of the PAD in distinguishing resistant behavior. As a matter of fact, the validation study of this instrument did not show significant correlations between resistance in the diary and resistant Strange Situation scores (Stovall and Dozier, 2004). Moreover, the study of Pugliese and colleagues (2010), who used an adopted version of the PAD, did not detect any significant variability in insecure behavior over the six month period, whereas a fast and steady rate of growth in secure attachment behavior was found.

Nevertheless, the objective of the present study went further than the simple detection of prevalent attachment patterns. Since the process by which new selective attachments are formed should move along different trajectories, or takes different forms (Dozier & Rutter, 2008), the objective of the present study was to examine how adoptive children become attached to the new primary caregiver.

First of all, we were interested in the timing issue: it was hypothesized, in line with what suggested by Stovall and Dozier (2000), that three months after placement could be a sufficient time for a child to develop a stable pattern of attachment toward the new caregiver. This hypothesis was confirmed in just half of the sample: a total of 3 out of 6 children in the sample seemed able to establish a stable pattern of attachment behavior within the three months after inter-country adoptive placement, showing a prevalence of the secure attachment (and for two of them a complete absence of insecure behavior in the last period of time).

On the other hand, the lapse of three months did not allow the detection of a stable pattern of attachment behavior among the remaining children. This lack of stability can be interpreted as the child's need for a longer time in the new family. As a matter of fact, the study conducted by Pugliese and colleagues (2010) showed in a similar sample of Chinese-born children, the construction of a stable pattern of

attachment within a period of six months. Else, this variability shown by half of the sample could also be a precocious sign of disorganized attachment.

With respect to the possible antecedents of this lack of stability, a few reflections can be made. This result does not seem to be related to the security of maternal attachment cognitions (on the contrary, all these 3 mothers showed the highest Q-index on secure-autonomous profiles), neither can this be related to the number of changes (one of the two children who experienced more changes in caregiving showed a stable pattern within the three months), nor to the age at placements (between 9 and 10 months of age). Lastly, the possible role of siblings was also considered, but no contingency was found between the presence of older children and the stability of attachment behavior at the end of the PAD completion. All the children in the sample spent a low percentage of time with their fathers, nevertheless the stability of attachment behavior did not seem to converge with the paternal attachment cognitions underlined by the CaMir.

Hence, it is presumable that this unexpected result could be linked to pre-adoptive experience with the foster-care mother. A secure relationship built during the first months in Korea could lead more easily to the development of a stable pattern of attachment. As a future research direction, it would be very interesting to compare, for the first time in the literature, the pre- and post-adoption child behavior, in order to better control the cultural and the caregiver's influence.

Nonetheless, the lack of stability after 3 months could also be related to PAD discriminant validity, such as the measurement of temperament issues instead of attachment ones. This validity aspect will be soon controlled for, since temperament measures will be available as part of the third wave of data collection of this longitudinal study.

Due to the complexity of the adoption, it was expected to highlight, through the microgenetic analysis of attachment behavior, the variety related to the attachment building, even in a homogeneous sample of young children. This hypothesis was confirmed: even if the children shared lots of pre- and post-adoption characteristics, the variability brought by each child was high. Interpersonal differences (through the comparison between the various graphs) and intrapersonal variability (the changes over time of each child's attachment behavior) were immediately evident from the graphical representation of the

behavioral trends. Moreover, this dual variability was shown also by correlation analyses: on one hand between the children in the sample, on the other hand within each subjects during the three months of diary completion. Similar results were reported by Stovall and Dozier (2000) in foster-care settings, with some children not developing a clear and stable attachment pattern during the first two months of placement. The authors concluded that an extension of the period of PAD completion could help the highlighting of a stable pattern, but the present study has proved that in the adoptive sample this is not always sufficient.

In order to test the change over time of attachment behavior among our sample of Korean-born adoptees, Hierarchical Linear Models were used. This type of statistical analyses allowed me to account for very important aspects of this type of data. First of all the subjects were not assumed to be measured on the same number of time points, allowing for the inclusion of missing data, which are always present in such longitudinal data collections. Moreover, HLMs estimates not only the average change in a population across time, but it also allows the calculation of change for each subject. None of the previous studies using the PAD and its related versions (Pugliese, Stovall 200, Stovall 2004) used the HLMs to model the change of attachment as effect of the time, but always considering independent variables such as child's or parent's characteristics (child's age and foster parent's attachment state of mind were found to predict secure and avoidant behavior in Stovall and Dozier's study, 2004). Since our sample was very homogeneous with respect to these characteristics, I decided not to consider these variables and to first test the simple effect of time in order to detect a trend, if present. Unfortunately, the high variability of attachment behavior, in addition to the small sample size, did not allow, in the case of secure attachment, the achievement of a sufficient model convergence. For avoidant and resistant behavior, respectively, the HLM procedure did estimate the initial level of attachment behavior, showing a higher variability in resistant ones. HLM's were not capable of predicting a slope parameter and the individual variability related to it, so the trend of attachment change over time was not modeled. Even if the sample was homogeneous, the variability brought by each child was high.

Once again, the small sample size did not allow testing regression analyses using the parental attachment cognitions as independent variables. However,

### \_\_\_\_ 3. Attachment development in a sample of Korean-born adoptees \_\_\_\_

maternal attachment Q-indexes derived from the CaMir were used to test group effects within the HLM analyses. Unfortunately, even if mothers were the primary caregivers in the whole sample, the convergence was not achieved for group effects models.

Nevertheless, if we consider that previous studies have used this statistical analysis in much larger samples (38 subjects for Stovall and Dozier and 32 for Pugliese and colleagues), with less observations collected, we can conclude that the results obtained in the present study are interesting. Future research would definitely require larger samples, and this would allow for possible alternative ways in which to apply the HLM analyses; for instance the focus of analyses only on the first month, or the calculation of weekly average scores. Lastly, we can state the PAD allows a rich and important data collection, useful in a single subject analyses. Nevertheless a larger sample is needed in order to model the attachment trends in adoptees.

Since the meta-analysis conducted on the studies using the *Attachment Q-Set* underlined a much stronger reliability when applied by an expert (M. van IJzendoorn, et al., 2004), the same problem could be present in our results, deriving from a parent-report questionnaire. However, the PAD validation study showed good correlations with the *Strange Situation Procedure*, except for resistant behavior. Possible limitations due to the self-reports nature of the PAD could be overcome by inserting in its use one or more mother-child observations conducted by a trained professional, for instance using the Attachment Q-Set as a non-self-reported attachment measure.

The data collection process implied a frequent exchange with the participants' adoptive families. From the parents' point of view, the daily PAD completion requires a strong collaboration and commitment: the parent is asked to compile the questionnaire precisely by the end of the day, when he/she is often tired. Also, this task requires a reflective effort that asks the parent to focus on their child's behavior and to reflect upon changes occurring over time. Adoptive parents who used the PAD seem to be more sensitive towards attachment behavior: for instance, they recognize that a frightened child asking for adult's intervention is not weaker than a baby who doesn't show his need for help, on the contrary he/she considers the caregiver a reliable source of comfort.

This results was not expected, therefore we did not plan to control for it. Nevertheless, since the PAD completion was necessary for the study, we may believe that the potential effect of the PAD on their sensitivity was uniform within the sample. As it is difficult to achieve the repeated evaluation of attachment over time through the use of different measures (for the methodological and economical reasons described above), the unique studies that analyzed the attachment process in similar samples recurred to similar measures. In consequence, we cannot compare these results with what would have happened in the attachment development without using this type of parental reports.

Parents recognized and appreciated their improved sensitivity toward the child's signals and were able to underline the changes in the attachment behavior; with respect to the first days, in every family this change went in the direction of an increase ability to be soothed, and to refer more frequently to the caregiver when distressed. Adoptive parents very much appreciated this fact, because it helped them feel significant and helpful to their child.

On the basis of graphical and statistical results, in addition to the feedback given by parents during and after the period of diary completion, PAD seemed to be a useful tool in post-adoption intervention: on one hand it helps the parents reflecting upon the child's behavior, and on the other hand it allowed for the detection of families in which the child shows instable patterns or a lack of strategy in attachment. This, in turn, can help the practitioners direct their supports and attention toward the families who shows more difficulties (Molina & Casonato, 2012).

The feedback given by parents during the PAD completion made us believe that having to reflect daily about their child's attachment behavior could improve their sensitivity towards the child's reactions in stressful situations.

# 4. ATTACHMENT AMONG ADOPTED ADOLESCENTS: RESULTS FROM AN INTERNATIONAL RESEARCH NETWORK

The literature provides strong evidence that the exposure to early stress (such as poor life and separations), often experienced by adopted children, constitutes a risk factors for their socio-emotional development (for a review, see: (D. Brodzinsky & Pinderhughes, 2002; van den Dries, et al., 2009). This happens not only for emotion regulation and attachment, but also with respect to the general adjustment: child's conditions at placement (age, gender, previous experiences), as much as the time spent within the adoptive family, have been considered as factors impacting on the later behavioral adjustment of the adoptee (Juffer & van Ijzendoorn, 2005; Gunnar et al., 2007; Miller et al., 2000; Habersaat et al., 2010). Even if the variables impacting on these two different domains are often the same, to our knowledge no studies have considered the possible interaction between the behavioral and the socio-emotional adjustment. This interaction could be even stronger during adolescence, a period of life involving separations and new relationships, in which these emotional and attachment issues become particularly sensitive (Bimmel, et al., 2003; Harf, Taïeb, & Moro, 2006).

Adolescence represents a period of significant growth and changes. On an individual level, the adolescent experiences rapid physical changes (the entrance into puberty) accompanied by psychological development (characterized by significant shifts in cognitive and emotional capacities). But changes occur even at a social and cultural level, bringing to the young individual new opportunities and

expectations. Since the definition and timing of adolescence depends on social and economic expectations, its length changed over time. Nowadays adolescence has been extended to include the ages of 10 through the mid twenties, with most researchers dividing the age span into early, middle, and late adolescent, level that almost reflect the different school levels attended by adolescents (Smetana, Campione-Barr, & Metzger, 2006).

Although adopted adolescents are over-represented in the psychiatric consultations (F. Juffer & van Ijzendoorn, 2005), only few studies addressed the issue of attachment about adolescents who had been adopted in infancy or in childhood (Beijersbergen, et al., 2012; Fava Vizziello, Boccanegra, Simonelli, Calvo, & Petenà, 1999; Rutter, Colvert, et al., 2007).

Furthermore, previous research indicated that family relationships are the most important resources available to the adolescent for coping with the developmental tasks connected to this particular phase of the life cycle and to their adopted status (Rosnati & Marta, 1997). Variable related to the family's emotional context (e.g. attachment to parents, maternal sensitivity, caregivers' IWMs, and parental reflective functioning) have been proven to bear a connection with the adoptee's attachment (Habersaat, Tessier, & Pierrehumbert, 2011; Palacios & Brodzinsky, 2010; Stams, Juffer, & van IJzendoorn, 2002, (Palacios, et al., 2009). In this belief, in order to better understand the psychological adjustment of adoptees, parents' representations of their children, themselves as parents, and their relationships with their children should be assessed (Slade, 2005).

## **4.1. Specific literature review**

### **4.1.1. Adoptees facing adolescence issues**

Adolescence represents a critical period for adopted children. In addition to the typical issues faced by every individual in this period of life, the variety of physical and cognitive changes of adolescence implies, among adoptees, the development of concerns about identity issues such as who they are, where they come from and what they will become (Bimmel, et al., 2003).

Although children learn to understand their racial identity at about the age of 7 (Huh & Ried, 2000), they understand the meaning of adoption only afterward, in late childhood, at about 11 years old, when they start being concerned with their adoptive status (Brodzinsky, 1984). Moreover, results of the studies analyzing behavioral problems normally shown by teenagers among adoptees, made the psychologists believe that the typical developmental tasks of adolescence begin earlier among adopted children (F. Juffer & van Ijzendoorn, 2005).

In this population, the period of adolescence and the building of a separate identity can be very difficult for several reasons. Erickson, who deeply studied the construct of identity, defined it as a social construct standing at the interface of individual personality, social relationships, subjective awareness, and external context (Erickson, 1968). In adoptees this developmental task is made harder by several reasons, such as the lack of information about their past (or the potential difficulties in collecting them) (D.M. Brodzinsky, 1987; Hoopes, 1990), and the necessity to cope with the notion of having been abandoned by biological parents (Bimmel, et al., 2003). Moreover, in the identity construction's process, the adoptee often tries to cut-off from his/her origin, choosing the new cultural identity to be tied to, but often its somatic traits reveal the previous culture from which the adolescent has tried to separate.

It may also be difficult for adopted adolescents to identify themselves with their adoptive parents, due to the different physical and somatic traits (Bimmel, et al., 2003). This is true for every adoptee, but even more so for inter-country adoptive children. Adoptees are faced to similar differences even in the process of identification with their peers, due to their actual different family status, to their past experience, and to their somatic traits. Moreover, considering that puberty is usually anticipated among adoptees (Berg-Kelly & Eriksson, 1997; Mul, Oostdijk, & Drop, 2002), it clearly comes into view that these children are faced to a more struggling construction of identity in this period of life (Grotevant, et al., 2000; Hoopes, 1990).



#### **4.1.2. The specificity of attachment in adolescence: normative and adoptive samples**

In adolescents' normative samples some changes in attachment representations may appear, with a higher rate of dismissing strategies and more rejection from the parents. This prevalence may be interpreted as a defense mechanism toward a better separation from primary attachment figures: keeping parental figures at some distance may help the achievement of a more definite personal identity (Ammaniti, van Ijzendoorn, Speranza, & Tambelli, 2000).

The quality of attachment in adolescence is clearly related to the level of self-reliance, a concept first described by Bowlby, which is the capacity for emotional regulation, interpersonal adjustment, and social competence (Sroufe, 2005). Indeed, secure-autonomous adolescents, having positive representations of interpersonal relationships, feel enough safe to explore and to begin their separation process from primary attachment figures. Among their peers, autonomous adolescents show better social competences and are more popular. On the contrary, adolescents with less positive or insecure representations show more hostility, anxiety, distress, and withdrawn and are more likely to manifest eating problems and substance abuse, suicidal and criminal behavior (Allen, 1996).

Since adoptees show a lower rate of attachment security as compared to their non-adopted peers (van den Dries, et al., 2009), when faced to the enlargement of their social network, many adoptees may present a difficulty in establishing selective bonds with others, leading to social withdrawal and feelings of helplessness (Sroufe, 2005).

Other research conducted with sample of adopted adolescents or pre-adolescents found interesting and encouraging results with respect to attachment issues.

The previously cited Dutch study, analyzing the stability of attachment from infancy to adolescence in an adoptive sample, found no significant continuity. However, deepening the maternal attitudes, they discovered that the sensitivity shown by mothers toward their adoptive sons, continue to play a role even in when they entered adolescence. At this time point, maternal sensitivity was measured while they were asked to discuss and try to reach consensus on an issue

on which they disagreed. Adoptees showing a secure attachment stably from infancy to adolescence had mothers who offered them a sensitive support both in childhood and adolescence, whereas less maternal sensitive support in early childhood but more maternal sensitive support in adolescence predicted children's change from insecurity in infancy to security in adolescence (Beijersbergen, et al., 2012).

In an Italian study conducted on 35 adopted pre-adolescents, in which the researchers found a distribution of attachment patterns similar to the normative sample, security of attachment was linked to the capacity of integrating in a coherent way their pre- and post-adoption attachment relationships, whereas insecure adoptees rather tend to split them (Riva Crugnola, Sagliaschi, & Rancati, 2009).

In conclusion, we can state that secure adopted adolescents should find easier to face the social and identity task typically required by this period of life. On the contrary, insecure adolescents are likely to apply defensive strategies that hinder their relationships with peers. Besides, adoptive parents can still play a role in helping their adoptive adolescents to increase the level of security in attachment relationships by showing a sensitive attitude toward their needs, especially in time of conflict.

### **4.1.3. Adoptive parents and their relationships with the adolescent**

Several years have passed since Fonagy highlighted the effect of parental reflective functioning on the infant's security of attachment (Fonagy, et al., 1991). However, to our knowledge, just a few studies analyzed the impact of the parental ability to reflect upon the child's experience and upon his/her own experience as a parent in adoptive samples. On the whole, studies analyzing family relationships within adoptive families, especially those with adolescents' adoptees, are only a few.

Firstly, we will report the results shown by a recent study conducted in Canada with 350 international adopted adolescents. The first interesting result was the following: adoptees reporting a lower attachment to their mother were more likely to show higher behavioral problems. Furthermore, maternal solicitation (e.g

asking the child about him/herself) was found to play a significant influence on behavioral problems: the more the mother starts conversations with the adolescent, the less the adoptee shows internalizing, externalizing and total behavioral problems. Maternal solicitation was also found to moderate the relationship between age at adoption and externalizing and total behavior, respectively. The same moderating effect was not found when attachment was considered as the outcome. This study suggests that a stronger attachment towards the maternal figure and a higher mother's solicitation towards their adopted child, could be a protective factor for adolescent's behavioral problems (Habersaat, Tessier, & Pierrehumbert, 2011).

The relevance of the paternal role in international adoptive families, in contrast, has been shown by an Italian study (Rosnati & Marta, 1997). Results showed that in adoptive families the father is closer to his children from a psychological point of view and plays a more central role in the adolescents' relational network than is the father in non-adoptive households. Father usually mediates between family and the social environment, and this may be enhanced in international adoptive families, where the developmental task of integration in the social context is complicated by ethnic and cultural differences. As a consequence, adoptive fathers are more involved in the task of raising their children.

The comparison between adoptive and non-adoptive families showed that the two parental figures play different roles in preventing the adolescent's maladjustment. In adoptive families, the quality of the mother-child relationship appears to be the most important protective factor in psychosocial adjustment during adolescence.

On the whole, this study underlines the centrality of family relationships for coping with the developmental tasks connected to adolescence and to the adopted status (Rosnati & Marta, 1997). Similar conclusion were also highlighted by another study, whose results showed that a good family support for adopted adolescents may constitute a protective factor against risks of suicide (Slap, Goodman, & Huang, 2001)

The relevance of the paternal role on adolescent's adjustment has been recently well depicted also by Benbassat and Priel (Benbassat & Priel, 2001). Even if this study was not conducted on adoptive families, its results are nevertheless

interesting for our purposes. The authors found that: the higher the fathers' and mothers' scored at the reflective functioning scale (RF), the more the adolescent was able to reflect upon experiences in terms of mental states. Moreover, higher parental RFs were correlated to better adolescent's social competences.

Unexpectedly, the same independent variable also predicted the level of internalizing problems and self-perception: if both parents scored high at the RF scale, then the adolescent was more likely to show internalizing problems and a poorer self-perception. The authors concluded that parental reflective functioning is associated with both desirable outcomes and possible costs and that paternal RF is a significant moderator of the associations between parenting behavior and adolescent outcomes.

To our knowledge, the only published study considering parental RF in an adoptive sample is the one conducted by Palacios and colleagues (Palacios, et al., 2009). By comparing 30 adoptive families with an equal number of biological mothers, they found a better capacity of adoptive parents to reflect upon their child's attachment-related difficulties in a way that did not interfere with their positive thoughts and feelings toward their children.

To conclude, we can state that research has proven the importance of different features of the relationship build between adoptive parents and adolescent to the latter's adjustment. A good attachment relationship characterized by warmth, psychological closeness, and the capacity to reflect upon behavior can help the adolescent develop better social competences and less externalizing behavioral problems. Although the paternal role seems to be central for the adolescents' development, especially in adoptive families, until now no studies have analyzed the father-adolescent relationship in detail.

#### **4.1.4. Specific objectives**

The present study will analyze a set of data collected in three different countries: Romania, Belgium and Italy. Its aim is to investigate attachment among pre-

adolescent and adolescent adoptees<sup>19</sup> not only as an outcome itself, but also exploring the possible intervention of attachment issues on the adoptees' adjustment.

Adopted adolescents have spent a sufficient number of years in their family, allowing this protective experience to leave his reparatory mark. At the same time, one of the central developmental tasks of adolescence is just the process of separation-individuation, which in turn activates the typical attachment issues. It is important to note that, among adoptees, two of the major issues of adolescence (i.e. identity issues and puberty), have been proven to develop earlier than in the normative samples (Juffer & van Ijzendoorn, 2005; (Mul, et al., 2002). Hence, this precocity must be taken into account when defining the age range for investigation, expanding it also to pre-adolescence.

Firstly, the risk factors underlined by the literature (such as age at placement, country of origin, and pre-adoptive experience if known) were tested singularly, in order to underline any possible effect on later adjustment. I expected to find more behavioral problems among the adolescents who have experienced many changes in caregiving. Similarly, I expected to find higher scores at the CBCL/YSR among adolescents who previously lived in institutions. Lastly, a higher rate of disturbances of attachment at placement should lead to a greater amount of behavioral problems in adolescence, as well as to lower scores on secure attachment.

In addition, I expected that the extent of pre-adoption experience plays a role on the later adjustment: the more the children have lived in adverse conditions, the harder would be the following adaptation. This hypothesis was tested combining the effect of the child's age at placement with his/her level of relational disturbances shown at arrival, and analyzing the impact on behavioral and socio-emotional adjustment in adolescence.

In order to account for the reparatory value of adoption, adolescent's attachment is believed to be determined not only by pre-adoptive experiences, but also by the influence of parental representations.

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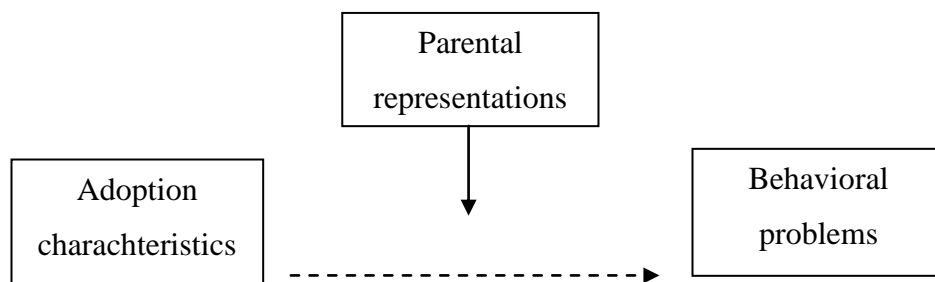
<sup>19</sup> The sample is composed by boys and girls internationally adopted when they were children (up to five years old) whom at present are aged between 11 and 16. In order to simplify, I will refer to the samples as to "adolescents"(or "adoptees"), even if for a part of them it would be better to refer as "pre-adolescent".

Lastly, more complex models were tested, accounting for the role played by the family's attachment features on the adolescent's adjustment. Therefore, I expected that the attachment representations showed by the adoptee and the parents could mediate or moderate the effect of pre-adoption experience on behavior problems showed by the adoptee. This effect was tested in two different way.

First, the parental related variables (such as warmth, attachment promotion, child focus, anger, or the adolescent's perception of a secure base) were believed to moderate, separately, the relationship between pre-adoptive risk and behavioral outcome (See Figure 20).

Figure 20

*Parental representations as moderator*

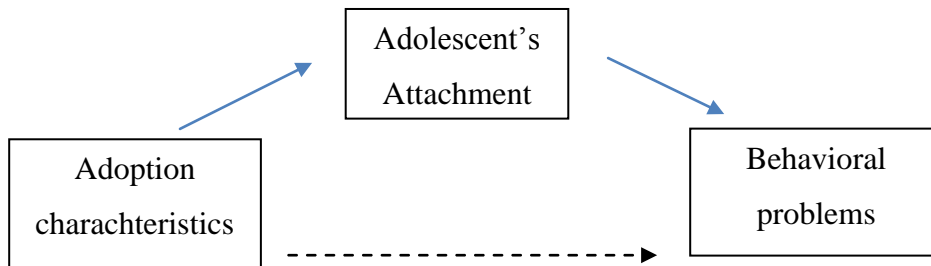


The relationship between pre-adoptive risk and behavioral problems in adolescence would depend on a third variable, constituted by the parental attitudes that adopters brought into the relationships with their child over time. Since parental representations cannot be conceived as linked to the pre-adoption characteristics, a moderation model is proposed. Due to the recognized importance of assuming a wider perspective that considers also the paternal influence, when possible I analyzed both maternal and paternal representations.

Simultaneously, adolescent's attachment features were hypothesized to mediate the relation between pre-adoptive risk and behavioral problems (See Figure 21).

Figure 21

*Adolescent's attachment as mediator*



In order to better explicate the process underlying the relationship between adoption characteristics and behavioral problems, a third variable was include as a mediator. Indeed, risk factors (such as age at adoption, country of origin and pre-adoptive experiences) underlined by the literature, have been proven to play a role both on attachment and on behavioral outcomes. Thus, it is hypothesized that the relationship between pre-adoption conditions and behavioral outcomes in adolescence can be mediated by the attachment cognitions developed by the adoptee.

Mediation and moderation models have been both tested, separately.

## 4.2. Method

### 4.2.1. Study design

The present study constitutes the first cross-country comparison within the Attachment Adoption Adolescence Research Network (AAARN). The study has a cross-sectional design. It was aimed at analyzing attachment among adoptive families with children aged 11 to 16 through the comparison of data collected by the Belgian, Romanian and Italian teams.

The study design also included the comparison with a group of non-adopted adolescents, but since the recruitment was still ongoing in Italy and Romania, the control group was not considered in the present dissertation.

#### 4.2.2. Participants

Participants include a total of 104 European adopted pre-adolescents and adolescents (45.2 % males; average age at assessment 12.92 years old,  $SD = 1.78$ ), both nationally and internationally adopted. The 53.8% of them were Romanians, 38.5% were Belgians, and 7.7% were Italians. Italian and Belgian participants were all internationally adopted, whereas Romanian sample was composed by domestic adoptees. This difference has to do with each specific country legislation: Romania does not practice inter-country adoption from abroad, being a donating country itself until 2001, when international adoption was suspended. Differences between countries and between national/international adoption will be tested.

The small percentage of Italian adoptees is due to the data collection lead by two different Italian Universities: at present, only data collected by the University of Torino were coded and available.

Eligibility criteria were to have adopted a child between birth and 6 years of age, whose age at data collection was between 11 and 16<sup>20</sup>. Exclusion criteria were parents or adolescent not speaking local language, adolescent's serious mental disease or retardation, adoptive status not yet disclosed.

The participants' recruitment was carried out through associations of adoptive parents and state agencies in every single country, separately. Among the families whose contacts were given by associations and state agencies to researchers<sup>21</sup>, the percentage of acceptance was about 90%. Belgian team used a snowball technique in order to implement the initial sample, asking to every adoptive family already interviewed to provide more contacts.

In all countries, participants were volunteers and did not receive any form of payment nor reimbursement. At the University of Torino (Italy) and at the

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<sup>20</sup> In order to simplify, from now on I will refer to adopted children as "adolescents" even if some of them is younger

<sup>21</sup> Unfortunately, it was not possible to find the rate of acceptance at this first step.



University of Timisoara (Rumania), the project was submitted to the Ethical Committee receiving the agreement to begin the research. Informed consents were given to both parents and adolescent before collecting the data.

### **4.2.3.Procedure**

The procedure included self- and parental-reports on the adolescent's behavior problems, semi-structured interviews with parents (mothers and father separately) concerning their representations regarding their attachment to the adopted child and his/her emotional development, combined with a retrospective attachment disorders interview, and a semi-structured interview with the adolescent concerning the her/his attachment representations. All interviews were recorded.

In every country, data collection was carried out in home settings: while interviewing a member of the family, other members were asked to fulfill paper-and-pencil questionnaires. Interviews were conducted by researchers or by master students specifically trained for this purpose.

Data collection was conducted within the space of two years (2010-2012).

### **4.2.4.Measures**

The common protocol shared by the research network includes several instruments (summarized in Table 13), which will be described in detail afterwards.

Table 13

*Study 2 - Instruments' details*

Explored domain	Instruments	Instrument span	Informants	Timing
Adolescent's repres. of attachment	FFI ( <i>Friends and Family Interview</i> , Steele et al., 2003)	10 to 18 y.o.	Adolescents	60 min
Parental representations of attachment	PDI ( <i>Parental Development Interview</i> ; Aber et al., 1985)	Adults (parents)	Mother and father	60 min
Behavior Problems	ASEBA school-age form ( <i>Child Behavior Check-List and Youth Self-Report</i> ; Achenbach, 2001)	Adults (parents), 6 to 18 y.o.	Mother and/or father, and adolescent	15 min
Reactive attachment disorder (RAD)	DAI ( <i>Disturbances of Attachment Interview</i> ; Smyke et al., 2002)	Adults (parents)	Mother and father	20 min

#### 4.2.4.1. Adolescent's attachment representations

The adolescent representations of attachment were assessed through the *Friend and Family Interview* (FFI) (H. Steele & Steele, 2005; M. Steele, et al., 2003), which is an adaptation of the Adult Attachment Interview (AAI) (George, et al., 1985) for late childhood and adolescence. It is a semi-structured interview providing categories of attachment representations and exploring the significant attachment figures like best friend, siblings, and parents. In each team of the network were collaborating at least two coders trained and certified by H. Steele (New School University, New York) on the basis of the FFI coding guidelines (H. Steele, Steele, & Kris, 2009).

This interview yields 8 dimensions scored on a 7-point scale (from 1 to 4 including mid-points), whose scores are obtained calculating the mean of several items.

1. Coherence: truth, economy, relation, manner and overall coherence.
2. Reflective functioning: developmental perspective, theory of mind (mother, father, friend, sibling, teacher) and diversity of feelings (self, mother, father, friend, sibling, teacher).

3. Evidence of safe/haven secure base: father, mother and other significant figure.
4. Evidence of self-esteem: social competence and school competence
5. Peer relations: frequency of contact and quality of contact
6. Sibling relations: warmth, hostility and rivalry
7. Anxieties and defense: idealization (self, mother and father), role reversal (mother and father), anger (mother and father), derogation (self, mother and father) and adaptive response.
8. Differentiation of parental representations.
9. Non-verbal codes: Fear/distress and frustration/anger.

Also, it allows the classification of children in four categories according to their attachment pattern: Secure attachment, Insecure-dismissing attachment, Insecure-preoccupied attachment and Insecure-disorganized attachment. Interviews were video-recorded and transcribed.

In a longitudinal study conducted by Steele (H. Steele & Steele, 2005), the four sets of ratings for coherence were examined for reliability by considering the Chronbach's alpha coefficients when each person's rating was treated as an item. Alphas computed ranged from .74 to .88. Moreover, correlations have shown that coherence of the attachment narratives is not significantly influenced by verbal intelligence. When compared to SSP scored in infancy, FFI's coherence appear to be a reflection of longstanding individual differences in attachment security within the family (H. Steele & Steele, 2005).

The FFI has already been used for the evaluation of attachment in adoptive samples (Abrines et al., 2012) and a previous study confirmed the validity of its coherence assessment with no difference between Belgium and Romania (Stievenart, Casonato, Muntean, & van de Schoot, 2012).

In the present study every single team translated the FFI questions in its own language. In Belgium the French version translated by the Swiss colleagues was used. All translations were carried out separately by two or three professionals with a good expertise on attachment's and in the English language. A final comparison was made within the team and lead to the final version of the interview. In Italy we tested it with 3 non-adoptive adolescents as a pre-test before starting the data collection.

Since in Italy all interviews were double-coded, the Intraclass Correlation Coefficient (ICC) was calculated on the major codes. Results are reported in Table 14 and show a good level of inter-rater agreement, especially for the scoring of mentalization and of evidence for secure base. However, it must be noted that the  $p$  values not always satisfactory are likely to be due to the small number of coded interviews. Nevertheless, overall coherence does not seem to reach a sufficient inter-rater agreement ( $ICC = .255, p = .242$ ).

Table 14

*FFI Inter-rater agreement in Italy: Interclass Correlation Coefficient concordance\**

Code	ICC	F	p
Overall coherence	.255	1.620	.242
Mentalization	.822	10.250	.001
Secure attachment	.531	3.625	.072
Dismissing attachment	.852	14.714	.005
Preoccupied attachment	.656	4.810	.055
Disorganized attachment	.923	25.000	.004
Secure base mother	.712	5.878	.007
Secure base father	.883	14.560	.000

\* Model casual effects, 2 ways, single measures, N=8

#### 4.2.4.2. Parental representations

The *Parent Development Interview* (PDI) (Aber, Slade, Berger, Bresgi, & Kaplan, 1985) is a 45 items semi-structured clinical interview. The PDI was used to examine the parents' representations of their adolescent, themselves as parents, and their relationships with their adolescent.

Analogous to the AAI (George, et al., 1985), the PDI is intended to assess internal working models of relationships. Unlike the AAI, in which adults are asked about their past relationships with their parents, the PDI elicits representations regarding a current, ongoing, "live" relationship that is still evolving, that of the parent with her or his child. The parent is asked to describe her or his child's behavior, thoughts, and feelings in various situations, as well as her responses to her or his child in these situations. The parent is also asked to

describe him/herself as a parent and to discuss emotions stimulated by the experience of parenting.

The interview strives in a number of ways to tap into parents' understanding of their children's behavior, thoughts, and feelings, and asks the parents to provide real life examples of charged interpersonal moments (Slade, 2005). The questions allow the evaluation of the parents' understanding of their own and their child's internal experience at times of heightened affective arousal. The PDI has been specifically adapted for adoptive parents (M. Steele, 2003). As for the FFI, each of the three teams of researchers had at least two coders trained and certified by M. Steele (New School University, New York). The coding system applied to this protocol is the "Experience of Parenting Coding System" developed by the Anna Freud Centre for use on "the Attachment in Adoption Research Project" (Henderson, Steele, & Hillman, 2007). This coding system yields three main groups of codes: the first one relates to the parent affective experience and includes codes such as parental anger, need for support, guilt, joy/pleasure, competence, confidence, level of child focus, disappointment/despair, warmth, attachment awareness and promotion, hostility. The second group of codes includes all the child affective experience codes, as reported by the parent: child aggression/anger, child happiness, child controlling/manipulating, child affection, child rejection. The last section yield global codes: parental reflection on relationship, overall coherence, richness of perceptions, description of relationship, and parent discipline style. For each of the specific content there is a quantitative score, ranging from 1 to 4 and only parent disciplinary style is categorical.

As for the FFI, this interview was translated from English in every specific language. Again, Belgian colleagues used the French translation carried out by the Swiss colleagues. In Italy the translation proceeded from the original version of the PDI (not adopted for adoptive parents) translated by Zaccagnino and colleagues (Zaccagnino, Vianzone, & Veglia, 2006). Specific translations were carried out separately by two or three professionals with a good expertise on attachment and English language. A final comparison was made within the team and lead to the final version of the interview.

In order to assume a wider familiar perspective, when possible PDI was administered to both parents, but for the Romanian team it was very hard to include fathers in data collection<sup>22</sup>.

#### 4.2.4.3. Behavioral problems

The *Achenbach System of Empirically Based Assessment* (ASEBA) – School Age (6-18), was chosen to evaluate adolescents' behavior problems. Each team used the published version translated in its own language (Achenbach, 2001; Achenbach & Rescorla, 2009). Each team used the ASEBA questionnaire forms in its specific language: French, Italian, and Romanian.

This set of questionnaires allows a multi-informant assessment and offers translations in more than 85 languages. This instrument was fulfilled by mothers and/or fathers (Child Behavior Check-list, Achenbach, 2001) and self-administered (Youth Self-Report, Achenbach, 2001) (YSR), both of them composed of 20 competence items and 118 problem items. This dissertation will focus on the second part, which constitutes a pool of questions rating the child's behavior or emotional problems and symptoms, representing the most commonly used measure to evaluate problems behavior.

Problem items produce a total score, which gives an overall estimation of the amount of symptomatic problems expressed by the child, two broadband syndromes scores (internalizing and externalizing problems), plus several scales (see Table 15). Questionnaires with 8 or more missing items were discarded.

The instrument's reliability and validity were tested on a sample of 1753 Northern-American subjects of different cultures (Achenbach & Rescorla, 2001).

Test-retest reliability for the problem items was very high (Intraclass Correlation Coefficient = .95,  $p < .001$ ). Internal consistency of each subscale ranged from .78 to .97 on the CBCL, .71 to .95 for the YSR.

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<sup>22</sup> Within the Romanian sample, 23% of the families were composed by single-mothers (including both divorced mothers, and women who started adoption as single parents); 46% of the fathers refused to be interviewed, because they believed that mothers are in charge of caregiving tasks; 29% of fathers did not totally refuse to participate, but were present during their spouse's interview.

Table 15

*YSR/CBCL structure and cross-informant agreement (Achenbach & Rescorla, 2001)*

Problem scale	Number of items	max score	item example (number)	Cross-informant agreement (YSR-CBCL)
Anxious/depressed	13	26	I'm nervous, high-strung, or tense (45)	.45
Withdrawn/depressed	8	16	There is very little thing I enjoy (5)	.40
Somatic Complaints	10	20	I feel dizzy or lightheaded (51)	.40
Social Problems	11	22	I get teased a lot (38)	.49
Thought Problems	12	24	I hear sound and voices that aren't there (40)	.37
Attention Problems	9	18	I can't concentrate, I can't pay attention for long (8)	.48
Rule Braking Behavior	15	30	I run away from home (67)	.55
Aggressive Behavior	17	34	I tease a lot (94)	.52
Other Problems	10	20	I don't eat well (24)	
Broadband scales			Scale composition	
Internalizing Probl.	31	62	Anxious/depressed + Withdrawn/depressed + Somatic complaints	.48
Externalizing Probl.	32	64	Rule Braking Behavior + Aggressive Behavior	.56
Total Probl.	105	210	Internalizing + Externalizing	.54
Mean <i>r</i>		.48		

Cross-informant agreement between parents and their children was analyzed calculating the correlation between raw problem scales of CBCL and YSR. All Pearson's coefficients were significant ( $p < .05$ ) and varied from .37 to .56.

The criterion validity of CBCL and YSR was supported by significant ( $p < .01$ ) discrimination between referred and non referred children through multiple regressions, odds ratio, and discriminate analyses. A large employment of the CBCL and YSR allowed to test the construct validity in many ways (evidence for significant associations with analogous scales of other instruments and DSM criteria, cross-cultural replications of ASEBA syndromes; genetic and biochemical findings; and predictions of long-term outcomes) (Achenbach & Rescorla, 2001).

The manual includes American norms for assigning T-scores, and also clinical cutpoints, but as the CBCL/YSR is largely used in clinical and research fields, several other standardizations have been conducted in different cultures. Since the purpose of this study is not to define the percentage of clinical problems, but to evaluate the impact of pre-adoption conditions on the rate of behavioral problems, raw scores will be used.

#### **4.2.4.4.Characteristics at placement**

##### ***Attachment disturbances***

In order to evaluate the presence of early attachment difficulties, the *Disturbances of Attachment Interview* (DAI) (Smyke, Dimitriescu, & Zeanah, 2002; Smyke & Zeanah, 1999) was used retrospectively. The DAI is a 13-questions interview designed to be administered by clinicians to caregivers. This measure is designed to explore particular patterns of the child attachment behavior (adapted from the descriptions of the Reactive Attachment Disorder (RAD), DSM-IV/ICD), but also Zeanah's broader conception of disorder of attachment. Namely, the items explore: having a discriminated, preferred adult, seeking comfort when distressed, responding to comfort when offered, social and emotional reciprocity, emotional regulation, checking back after venturing away from the caregiver, reticence with unfamiliar adults, willingness to go off with relative strangers, self endangering behavior, excessive clinging, vigilance/hyper-compliance, and role reversal. This interview has been especially used for institutionalized and adopted children (Smyke, et al., 2002).

Probes elicited information for a coder to rate the child's behavior on each item. The DAI items were coded according to the scoring criteria established by Smyke, and Zeanah (1999). Items were coded either: '0' = none/little when there is no evidence of attachment disturbance; '1' = sometimes/somewhat when there is some evidence of attachment disturbance; or '2' = rarely/minimally when there is evidence of behavior consistent with attachment disorder. In summing the items, the score provides an indication about disturbances of the attachment relationships on a continuum from normal to pathological.



The DAI has been shown to distinguish between institutionalized and never institutionalized children in Romania (Smyke, et al., 2002) and to converge with similar contemporary measures of RAD used in other studies of Romanian adoptees (e.g., (O'Connor & Rutter, 2000) with inter-correlations ranging from  $r = 0.64$  to  $r = .97$  (Zeanah, Smyke, & Dumitrescu, 2002).

The DAI was used here retrospectively: for each question, mothers were asked to remember the child's behavior just after placement and one year later. These two answers lead to two different DAI score (referred to the very beginning and to 12 months later); since in the present dissertation the attachment disturbance score was used for the evaluation of possible attachment problems at placement, only the first score was considered.

### ***Country of origin***

The *country of origin* of international adoptees was indexed in 4 regions, corresponding to the continent in which the State of provenience is located: Latin America, Africa, Eastern Europe, and Asia.

### ***Age at adoption***

*Age at adoption* was calculated in months, subtracting the date of birth from the date of arrival.

## **4.2.5. Demographics**

A total of 104 European adoptees were included in the present study: 53.8% of them were Romanians ( $n = 56$ ), 38.5% were Belgians ( $n = 40$ ), and 7.7% were Italians ( $n = 8$ ) (Table 16).

Table 16

*Gender by Country of Adoption*

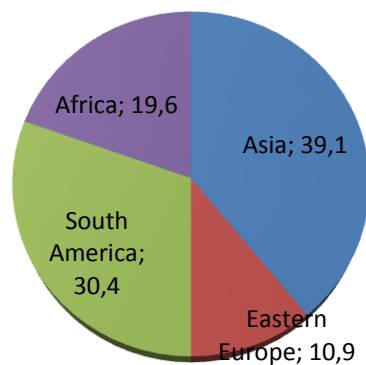
	Country of Adoption			Total
	Belgium	Italy	Romania	
Boy	22	6	19	47
Girl	18	2	37	57
Total	40	8	56	104

The mean age at assessment was 12.92 years old ( $SD = 1.78$ ); 45.2 % were males ( $n = 47$ ), whereas 54.8% were females ( $n = 57$ ).

With respect to the different forms of adoption, 53.8% of the participants were adopted through domestic adoption and the remaining 46.2% were born in a different country; among them, the most represented countries of origin were Asians (39.1%) and Southern Americans (30.4%) (see Figure 22).

Figure 22

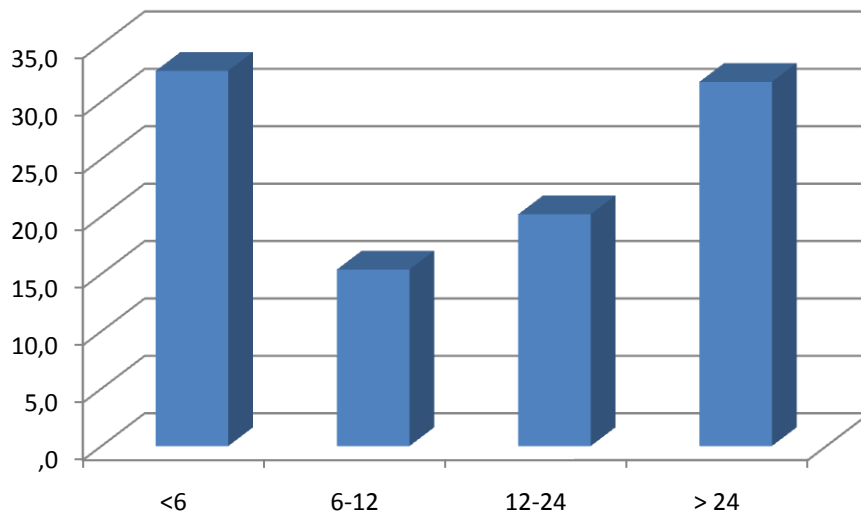
*Provenance of international adoptions*



Age at placement was distributed as follows: 48.1% were adopted within the first year of life, the 20.2% within the second, and the remaining 31.7% were older than 2 years old at placement. Average age at adoption was 19.67 months ( $SD = 18.11$ ) (see Figure 23).

Figure 23

*Age at adoption (in months)*

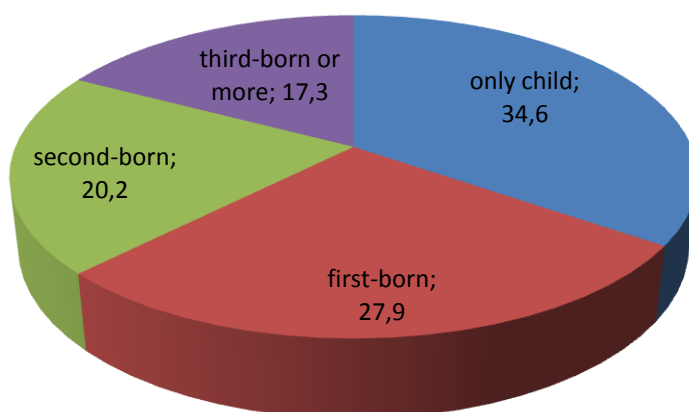


On average, at assessment adolescents had spent 11.28 years in their adoptive family ( $SD = 2.26$ ).

With respect to the presence of brothers and sisters, 34.6% were only children, whereas the remaining 65.4% had one or more siblings (see Figure 24).

Figure 24

*Percentage of only children and order of birth*



The adoptive parents' mean age at child's placement was 37.4 years old for mothers ( $SD = 6.8$ ), and 39.2 years old for fathers ( $SD = 6.5$ ). With respect to their educational level, the 23.1% of mothers ( $n = 24$ ) obtained a university degree,

against the 17.3% of the fathers ( $n = 18$ ). A high school diploma was acquired by the 47.7% of fathers ( $n = 42$ ) and by the 41.7% of mothers ( $n = 43$ ). The remaining subjects were middle school graduates.

#### 4.2.6. Data analyses

Data analyses were carried out on cross-sectional data collected up to July 2012 from the Belgian, Italian, and Romanian teams among adoptive families with children aged 11 to 16. Analyses were performed with PASW Statistics 18.0 (PASW Statistics, 2009).

Univariate characteristics of all study variables were reported by descriptive statistics including means, standard deviations and percentages. T-test and Anova were used to test any potential gender and country differences on continuous variables, and  $\chi^2$  test for categorical variables. Bonferroni post-hoc test was used to determine the significant differences between the levels of independent variable in the analyses of variance.

Simple linear regression<sup>23</sup> analysis was used to test whether pre-adoption conditions (age and rate of attachment disorders at arrival) significantly predicted the adolescent's attachment representation and the rate of behavioral problems. Unfortunately it was not possible to test the effect of other pre-adoption characteristics (such as institutionalization and changes in caregiving) because they weren't available in the Belgian subsample. In the regression analysis, independent variables were first used separately. But since recent literature tend to conceive the age at placement not as an intervenient variable itself, but as the lapse of time spent in difficult conditions, we supposed that older children presenting a higher rate of dysfunctional attachment behavior have lived longer in negative conditions. Hence, age and disturbance of attachment were used together as independent variables, in order to test if their combined effect could better predict the adolescent's attachment and behavioral problems. All linear regressions were controlled for age and gender.

Mediation analyses were tested through the calculation of Sobell's test.

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<sup>23</sup> Due to the small number of subjects, especially in the Italian subsample, all regression analyses were conducted on the whole sample of adoptees without differing for the country of adoption

## 4.3.Results

### 4.3.1.Descriptive results

Means and standard deviations of the variables of interest are presented here. When tested, gender and country differences are reported. With respect to pre-adoption variables, since Belgium did not collect information about the adolescent's pre-adoptive experience, just age at placement will be reported.

#### 4.3.1.1.Age at placement

As previously reported, mean age at adoption was 19.67 months ( $SD = 18.11$ ), meaning that in our sample, on average, children have been adopted when they were 1,5 years old. This data significantly varies between countries, as shown by the One-way ANOVA ( $F = 4.032, p = .021$ ). Older children were adopted in Italy, especially if compared to Belgian adoptees (mean difference: 18.83 months,  $p = .021$ ). Paired-samples T-tests were conducted to compare age at placement in boys and girls, but no significant differences were found ( $p > .05$ ).

#### 4.3.1.2.Disturbance of attachment at placement

The average level of attachment disturbances at placement (as measured by the retrospective form of the *Disturbances of Attachment Interview*) was 7.38 (max score = 26,  $SD = 3.54$ ).

Paired-samples T-tests were conducted in order to compare the levels of disturbance of attachment in boys and girls, but no significant differences were found ( $p > .05$ ). The One-way between subjects ANOVAs conducted to compare the effect of the countries of adoption on disturbances of attachment showed no significant differences ( $p > .05$ ) between Belgium, Italy, and Romania.

### 4.3.1.3. Adolescent's attachment

The scores attributed to individuals in each of the 4 attachment categories through the Friends and Family Interview's coding system, were used to explore the adolescents' attachment distribution within the sample. First, mean values for every attachment classification will be reported (see Table 17).

Table 17

*FFI mean scores (N = 101)*

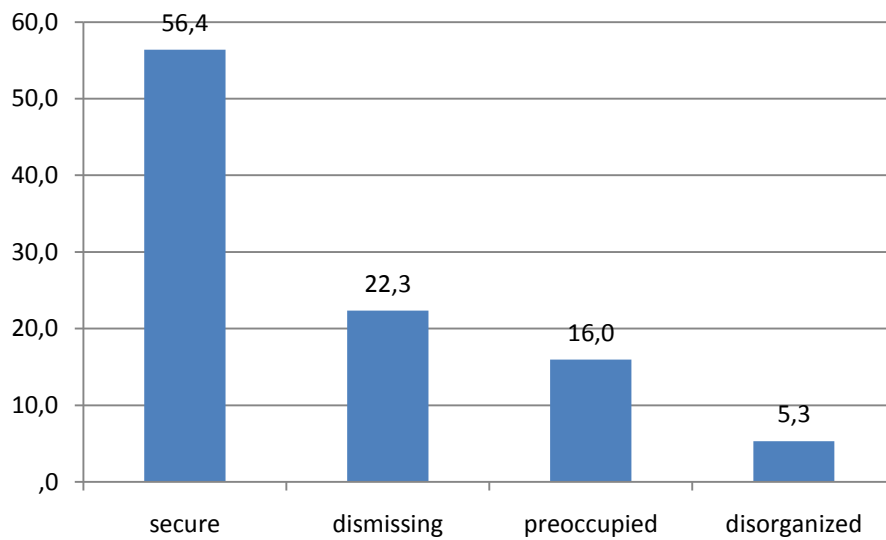
Attachment	M	SD
Secure	2,54	1,14
Dismissing	1,87	0,97
Preoccupied	1,65	0,86
Disorganized	1,31	0,64

On average, secure pattern obtained the highest scores, whereas disorganized attachment obtained the lowest. One-way between subjects ANOVAs were conducted to compare the effect of the country of adoption on FFI attachment scores between Belgium, Italy, and Romania. No significant results were found.

In order to identify a prevalent attachment pattern for each participant, it was decided to underline the classification that, among the four of them, was scored as the highest. In 10 cases (among the 104 adolescents) it was not possible to detect a prevalent attachment (because two patterns obtained the same score). The resulting distribution is shown in Figure 25.

Figure 25

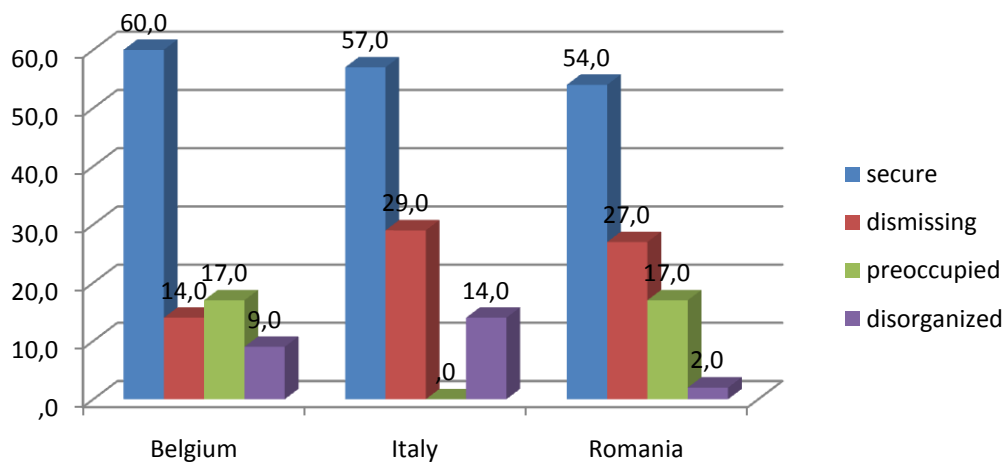
*Adolescent's prevalent attachment (%) (N = 94)*



A Chi Square test was performed to determine whether the adolescent's prevalent attachments were distributed differently across the different countries of adoption. The test failed to indicate a significant difference,  $\chi^2 (6) = 5.86, p = .39$ . The distribution of adolescent's prevalent attachment per country of adoption is shown in Figure 26.

Figure 26

*Adolescent's prevalent attachment per country of adoption (%) (N = 94)*



In every country the secure attachment is the most represented (over 50% of the subsamples). In Italy and Romania it is followed by dismissing attachment, whereas in Belgium the second most represented attachment is the preoccupied one. Paired-samples T-tests were conducted to compare attachment scores in boys and girls. No significant differences were found ( $p > .05$ ). The attachment distributions do not vary considerably between countries: secure attachment shares in all realities a very similar percentage, whereas small (but not statistically significant) differences are attributable to insecure patterns.

Among the FFI scores, overall rate of coherence and mentalization were also used. Coherence was calculated by adding its 5 scores (truth, economy, relation, manner, and overall coherence), whereas mentalization was obtained by adding the scores related to the adolescent's ability to reflect upon his/her mother's, father's, and best friend's state of minds (see Table 18).

Table 18

*Adolescents' levels of coherence and mentalization (N = 101)*

	max	M	SD
Mentalization	12	7,36	2,25
Coherence	20	15,07	2,68

T-test did not identify any significant differences between boys and girls with respect to these two attachment-related variables, meaning that boys and girls do not rate different in their mean levels of coherence and mentalization. On the contrary, Anova underlined a significant difference between the countries of adoption with respect to coherence [ $F(2,99) = 4.447, p = .014$ ], and mentalization ( $F(2,98) = 15.142, p = .000$ ), with Romanian adoptees scoring higher the Belgians on both constructs.

#### **4.3.1.4. Parental representations**

Since the Romanian sample did not administered the *Parent Developmental Interview* to fathers, in the present section we will firstly refer to the scores obtained on the whole sample through the coding of mother's interview. Father's



representation of attachment will be reported below, only referring to international adoptees.

The level of difficulty that the adoptive parent attributes to the adopted adolescent has been calculated by adding the scores of aggressive and rejecting child, plus the reverse item of child happiness and child affectionate.

Table 19  
*Mothers' PDI principal scores (N = 103)*

	Mean	SD
Anger*	4.16	1.36
Reflective functioning	2.92	0.84
Joy/pleasure	3.07	0.84
Child focus	3.16	0.80
Disappointment/despair	1.90	0.77
Warmth	3.05	0.91
Attachment awareness and promotion	2.90	0.92
Hostility	1.49	0.74
Difficult child*	8.03	2.55

\*max score = 8, \*\*max score=16

In a general way, Table 19 shows that, on average, the codes with a positive meaning (i.e. joy/pleasure, child focus, warmth, and attachment awareness and promotion) score higher than negative ones (e.g anger, disappointment and despair, hostility, and difficult child). This result shows that adoptive mothers, while interviewed, usually tend to give more references towards a positive description of their child, their relationship with him/her, and themselves as parents, then to the references given for negative aspects.

Paired-sample T-tests were conducted to compare maternal PDI's scores in boys and girls, but no significant results emerged ( $p > .05$ ). One-way between subjects ANOVAs were conducted to compare the effect of the country of adoption on maternal representations. A significant effect of the country was found on some of the analyzed codes. Specifically, maternal anger [ $F(2,99) = 6,33, p = .003$ ], disappointment/despair [ $F(2,100) = 9.46, p = .000$ ], attachment awareness and promotion [ $F(2,100) = 4,38, p = .015$ ], and hostility [ $F(2,100) = 13.22, p = .000$ ] were found to vary between countries. Bonferroni post-hoc test identified that Belgian mothers showed significantly lower rates of anger toward their child

when compared to Italian and Romanian mothers. On the contrary, Romanian mothers were found to score significantly higher on disappointment/despair in comparison with Italians and Belgians. A similar result showed that Romanian mothers scored higher on hostility than Belgians. Lastly, Belgian mothers showed significantly higher levels of attachment awareness and promotion than Romanians.

As for mothers', also fathers reported higher mean scores with respect to positive codes meaning that, in average, inter-country adoptive fathers generally represent their child, their relationship with him/her, and themselves as parents in a positive way (see Table 20).

Table 20

*Father's PDI principal scores (N = 40)*

	Mean	SD
Anger*	3.95	1.41
Reflective functioning	2.50	0.78
Joy/pleasure	2.75	0.78
Child focus	2.54	0.78
Disappointment/despair	1.60	0.74
Warmth	2.90	0.78
Attachment awareness and promotion	2.78	1.00
Hostility	1.25	0.49
Difficult child**	7.63	2.44

\*max score = 8, \*\*max score=16

Paired-samples T-tests were conducted to compare the representations of the child, of the father, and of their relationship, between fathers of boys and girls. A significant difference on paternal representations was found with respect to hostility scores of male adolescents ( $M = 1.42$ ,  $SD = .58$ ) and female adolescents ( $M = 1.00$ ,  $SD = .00$ );  $t(38) = 3.500$ ,  $p = .002$ , suggesting that boys are perceived by their fathers as more hostile than girls. Hence, all the father of the sample defined their adopted girls as the less hostile as possible (see Table 12).

### 4.3.1.5. Behavioral problems

Raw scores obtained at the problems scales of YSR and CBCL were analyzed, computing also the broadband scales of internalizing, externalizing, and total problems. Parental reports were fulfilled in 92 cases by the mother, and in the remaining 12 cases by the father.

Cross-informant agreement was calculated through Pearson's correlation among problems scales (Table 21). Correlations between the two informants' problem scales were found to be always significant, except for the scale referred to withdrawn and depression.

Table 21

*Pearson's correlations between YSR/CBCL problem scales*

	<i>r</i>
Anxious/depressed	0,317**
Withdrawn/depressed	0,194
Somatic	0,359**
Social	0,591**
Thought	0,218*
Attention	0,463**
Rule breaking	0,383**
Aggressive	0,465**
Other problems	0,275**
Internalizing	0,314**
Externalizing	0,517**
Total	0,499**

\* $p < .05$ , \*\* $p < .01$

Mean values of YSR and CBCL problem scales and broadband scales are reported in Table 22.

Table 22

*Behavioral problems scores: self- and parental-reported*

Problem scale	Max score	YSR ( <i>N</i> = 101)		CBCL ( <i>N</i> = 104)	
		M	SD	M	SD
Anxious/depressed	26	4,76	4,43	3,80	3,33
Withdrawn/depressed	16	3,63	2,67	2,73	3,27
Somatic complaints	20	3,10	3,18	1,69	1,80
Social problems	22	4,19	3,24	3,82	3,17
Thought problems	24	4,64	4,23	2,02	2,46
Attention problems	18	5,32	3,19	4,86	3,64
Rule breaking behavior	30	3,70	4,49	2,88	2,99
Aggressive behavior	34	7,09	5,25	6,40	5,46
Other problems	20	4,18	2,89	3,79	3,40
Internalizing	62	11,50	8,75	8,22	6,18
Externalizing	64	10,79	8,95	9,28	7,81
Total	210	40,61	26,31	28,21	18,69

Paired-samples T-tests were conducted to compare behavioral problems in boys and girls. Whereas no gender differences were found on problem scales of the adolescent's reports (YSR), there was a significant difference in the scores reported by parents (CBCL) with respect to attention problems among boys ( $M = 5.88$ ,  $SD = 3.51$ ) and girls ( $M = 4.02$ ,  $SD = 3.54$ );  $t(102) = 2.680$ ,  $p = .009$ . These results suggest that behavioral problems scores were not significantly different between boys and girls, except for attention difficulties.

One-way between subjects ANOVAs were conducted to compare the effect of the country of adoption on behavioral problems. There was a significant effect of country on youth self-reported problems. Specifically, on withdrawn/depressed [ $F(2, 98) = 4.28$ ,  $p = .014$ ], thought [ $F(2, 98) = 3.63$ ,  $p = .030$ ], aggressive [ $F(2, 98) = 9.54$ ,  $p = .000$ ], attention [ $F(2, 98) = 5.74$ ,  $p = .004$ ], externalizing [ $F(2, 98) = 6.37$ ,  $p = .003$ ], and total problems [ $F(2, 98) = 4.64$ ,  $p = .012$ ]. Bonferroni post-hoc tests revealed that in all cases the significant difference was between Belgian and Romanian scores, with Belgians adoptees reporting a higher rate of problems.

### **4.3.2.Pre-adoption conditions and later outcomes**

In the present section, I will report the result answering the first research question of the study: do the risk factors underlined by the literature play a role on the adolescent's adjustment?

Variables related to pre-adoptive experiences were used in order to compare the level of behavioral and socio-emotional adjustment among the adopted adolescents. To do so, the various pre-adoption conditions were analyzed both through ANOVA and regression analyses.

Unfortunately, it was not possible to test all of them on the whole sample. Country of origin was a specificity of internationally adoptees (so it wasn't applied among Romanians, who were all born in the same country), whereas more information regarding pre-adoptive placement were available for Romanian domestic adoptees. As previously stated, it is often difficult to obtain information with respect to the child's past life through international adoption.

Thus, results will be reported separately for domestic and inter-country adoption.

#### **4.3.2.1. Internationally adoptees and their country of origin**

It was hypothesized that inter-country adopted adolescents could differ on attachment and/or on behavioral outcome with respect to their country of origin. Specifically, we expected to find poorer attachment representations and mentalization among children adopted from Eastern Europe. Only international adoptions were considered, testing a one-way between subjects ANOVA on the Belgian and Italian subsamples in order to compare adolescents' outcomes between the countries of origin,

The four different continents of provenience of internationally adopted adolescents were used as levels of the independent variable (Africa, Asia, Southern America, Eastern Europe), while the four attachment scores, mentalization, and

coherence, in addition to the broadband scales of CBCL and YSR, were used as dependent variables.

There was not a significant effect of country of birth on attachment variables (attachment patterns, coherence, and mentalization) at the  $p < .05$  level, meaning that in our internationally adoptive sample, adolescents who were born in Eastern-European countries didn't score lower on secure attachment, nor on mentalization. Similarly, adoptees who were born in different geographical regions did not significantly differ with respect to behavioral problems, self- and parental-reported.

#### **4.3.2.2. The effect of institutionalization among Romanian adoptees**

Since the Romanian team collected lots of information about the pre-adoption conditions, we decided to deepen this issue on a subsample of domestic adoptees. Through T-tests and ANOVAs we compared adolescents who differed from their pre-adoption conditions. Specifically, our aim was to confront the various types of placements (biological family, hospital, institution, foster care), and the rate of changes in caregiving that children experienced before adoption.

A one-way between subjects ANOVA was conducted on the Romanian subsample in order to compare pre-adoption placements in adolescent's outcome, using as dependent variables the broadband scales of YSR and CBCL and the four attachment pattern scores. There was not a significant effect of pre-adoption type of care on attachment nor on behavioral problems at the  $p < .05$  level.

Due to the recognized negative effects of the experience of institution, the different forms of pre-adoption placements were re-coded into a binary measure of institutionalization. This variable was used as independent variable in the independent-samples T-test comparing the adolescent's outcomes (attachment patterns and behavioral problems). Results were not statistically significant ( $p > .05$ ).

### **4.3.2.3. The effect of number of placements among Romanian adoptees**

Further ANOVAs (one-way between subjects) were conducted to compare the level of behavioral problems reported (YSR and CBCL broadband scales), as well as the attachment scores, with respect to the number of placements experienced by the child before adoption.

There was a significant effect of changes in caregiving on the total rate of behavioral problems at the  $p < .05$  level (respectively for YSR [ $F(2,53) = 3.661, p = .032$ ] and CBCL [ $F(2, 53) = 3.335, p = .043$ ]). Post-hoc test reported significant differences only on the behavioral problems as self-reported by the adoptee, between one *versus* three changes in caregiving (mean difference of 24.01, Bonferroni post-hoc  $p = .034$ ). No significant results were found on the four attachment patterns ( $p > .05$ ).

The relationships between the changes experienced by the child and his/her later behavioral adjustment was further analyzed through regression analyses, controlling for age and gender of the adopted adolescent. Results indicated that the number of changes in placements explained 20.3% of the variance of YRS externalizing scores ( $Adj R^2 = .157, \beta = .289, p = .024$ ) and 16.7% of total problems ( $Adj R^2 = .119, \beta = .344, p = .009$ ). It was found that changes in caregiver significantly predicted behavioral problems as reported by adolescents (respectively:  $\beta = .289, p = .024$  and  $\beta = .344, p = .009$ ) (see Table 23).

Table 23

*Effect of changes in pre-adoptive placement on Romanians behavioral problems (N = 55)*

	YSR externalizing		YSR total	
	<i>Adj R<sup>2</sup></i>	$\beta$	<i>Adj R<sup>2</sup></i>	$\beta$
Changes in pre-adoptive placements	.157	.289	.119	.344

Contrarily to the results reported with respect to behavioral outcomes, simple linear regressions did not show any significant effect of the same variable on attachment scores ( $p > .05$ ).

### **4.3.3. Age at placement, attachment disturbances, and later adjustment**

In order to answer the research question about the role played by risk factors on the adolescent's adjustment, after having analyzed the pre-adoptive conditions experienced by the child, we will now focus on the characteristics of placement. Specifically, the risk factors now considered refers to the child's age at the encounter with adoptive parents, and to the level of attachment disturbances displayed immediately after (DAI scores). These two variables were available for the whole sample, because all adoptive parents knew them, and thus reported them to the researcher in all the three countries. First, they were analyzed separately, and then their combined effect was tested.

Through simple linear regressions, the effect of attachment disturbances was tested on various dependent variables, all referring to adolescent's behavioral problems and attachment.

Results showed that DAI at arrival explained 6.6% of the variance of CBCL total score. It was found that disturbance of attachment at placement significantly predicted the total rate of adolescent's behavioral problems as evaluated by parents ( $\beta = .262, p < .01$ ). Age at arrival (in months) as well, explained part of the variance of CBCL total score (5%), significantly predicting the parents' evaluation of the total problems shown by their children ( $\beta = .240, p < .05$ ) (see Table 24).



Table 24

*Adoption characteristic predictors of adolescent's behavioral problems*

	CBCL total problems	
	<i>Adj R</i> <sup>2</sup>	$\beta$
Retrospective DAI (N= 96)	.066	.262
Age (N= 103)	.050	.240

Neither age nor disturbance of attachment at placement significantly predicted the rate of behavioral problems as self-reported by adolescents on broadband scales ( $p > .05$ ).

With respect to attachment, the results of linear regressions indicated that the DAI at arrival explained 10.3% of the variance of the FFI score attributed to the category of secure attachment. It was found that disturbance of attachment at placement significantly predicted the security of adolescent's representation in adolescence ( $\beta = -.300, p < .01$ ). Age at arrival (in months) explained as well part of the variance of the FFI security (10.8%), significantly predicting the adolescent's level of secure attachment representations ( $\beta = -.315, p < .01$ ) (see Table 25).

Table 25

*Adoption characteristic predictors of adolescent's attachment representations*

	Secure		Dismissing	
	<i>Adj R</i> <sup>2</sup>	$\beta$	<i>Adj R</i> <sup>2</sup>	$\beta$
Retrospective DAI (N= 93)	.103	-.300**	.029	.204*
Age (N= 100)	.108	-.315**	.098	.337***

*Note.* \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$

Another significant effect of pre-adoption conditions shown by linear regressions has to do with dismissing attachment. To this regard, the results indicated that the DAI at arrival explained 2.9% of the variance of the FFI score for dismissing attachment. It was found that disturbance of attachment at placement significantly predicted the dismissing adolescent's attachment ( $\beta = .204$ ,

$p < .05$ ). Age at arrival (in months) explained as well part of the variance of this insecure pattern (9.8%), significantly predicting the adolescent’s level of dismissing attachment ( $\beta = .337, p < .001$ ).

Neither age, nor disturbance of attachment at placement significantly predicted the other attachment dimensions (i.e. preoccupied and disorganized), and not even predicted the other FFI dimensions correlated to attachment (i.e coherence and mentalization) ( $p > .05$ ).

Linear regressions testing the combined effect of age and attachment disturbances at placement indicated that the only significant effect was on mentalization. Among all the variables related to attachment (behavioral problems, attachment category’s score, coherence, and mentalization), the combination of these two risk factors impacts only on the later capacity of the adolescent to reflect on self’s and other’s state of mind, explaining the 2.8% of the variance of mentalization. Thus, the combined effect of age at adoption and the level of attachment disturbances, tend to influence the adolescent’s ability to assume the mental/emotional perspective of another person ( $\beta = -.621, p < .05$ ) (see Table 26).

Table 26

*Adoption characteristic influencing adolescent's mentalization (N = 94 )*

	Mentalization	
	<i>Adj R<sup>2</sup></i>	$\beta$
Retrospective DAI		.347*
Age		.546*
Retrospective DAI * Age	.028	-.621*

*Note.* \* $p < .05$ .

#### **4.3.4. The effect of parents related variables on adolescent’s attachment**

In the belief that in a long term perspective parental attachment representations impact on their children’s IWMs, simple linear regression analysis (controlled for

age and gender) was also used to test whether the effect of some positive PDI's dimension significantly influences the adolescent's attachment security.

#### **4.3.4.1 Maternal representations**

With respect to mothers' interviews, some of the PDI's variables (maternal warmth, attachment awareness and promotion, child focus, and reflective functioning) were used as independent variables to predict adolescent's score of each pattern of attachment.

The maternal awareness of the attachment's importance highly and significantly ( $p < .001$ ) influenced the adolescent's attachment security ( $\beta = .597$ ), explaining the 35.2% of its variance. Similarly, the degree to which parent is focused on the adolescent's needs as compared to his/her own emotional needs significantly predicted the adolescent's security ( $\beta = .397$ ,  $p < .001$ ) explaining the 15.3% of its variance. Finally, the maternal warmth significantly influenced the adoptee's secure attachment ( $p < .001$ ,  $\beta = .522$ ), with 26.9 of its variance explained. On the contrary, the level of maternal disappointment, that is central issue for the adoption's success or failure, predicted in a negative way the security of attachment of the adoptee ( $p < .001$ ,  $\beta = -.454$ ).

Lastly, the maternal reflective functioning significantly predicted attachment security ( $p < .001$ ), explaining the 13.8% of its variance ( $\beta = .377$ ). All results are shown in Table 27.

Table 27

*Maternal predictors of adolescent's attachment security (N = 99)*

	Attachment security	
	<i>Adj R</i> <sup>2</sup>	$\beta$
Child focus	.153	.397***
Warmth <sup>a</sup>	.269	.522***
Attach. awareness / promotion <sup>a</sup>	.352	.597***
Anger		
Disappointment/despair <sup>a</sup>	.197	-.454***
Reflective functioning	.138	.377***

*Note.* All controlled for adolescent's age and gender. \*\*\* $p < .001$ .

<sup>a</sup> Gender coefficient is also significant ( $p < .05$ )

#### 4.3.4.2. Paternal representations

The same regression analyses showed in the previous section were repeated in the subsample of 36 Belgian and Italian internationally adopted children, whose fathers participated in the data collection.

Among the parental representations considered (warmth, attachment awareness and promotion, child focus, reflective functioning, and anger), significant results are shown in Table 28. The level of disappointment and despair reported by the father toward his/her child was found to negatively predict the adoptee's security of attachment ( $\beta = -.564$ ,  $p < .001$ ), explaining the 33.7% of its variance. On the contrary, paternal warmth positively predicted the adolescent's secure classification ( $\beta = .331$ ,  $p = .049$ ), explaining a lower percentage of its variance (12.6%) (see Table 28).

Table 28

*Paternal predictors of adolescent's attachment security (N= 36)*

	Secure	
	<i>Adj R<sup>2</sup></i>	<i>β</i>
Disappointment/despair <sup>a</sup>	.337	-.564***
Warmth	.126	.331*

*Note.* All controlled for adolescent's age and gender. \* $p < .05$ ; \*\*\* $p < .001$ .

<sup>a</sup> Age coefficient is also significant ( $p < .05$ )

### **4.3.4.3. The adolescent's perception of parents as secure bases**

In the belief that the adolescent's attachment depends on the sense that a secure base (from mother and/or from father) is available, the effect of the adolescent's perception of parents as present and accessible, on his/her security of attachment was tested through simple linear regressions, controlled for age and gender. In a total of 100 subjects, the mother's availability in case of need predicted the 23.5% of the variance for secure attachment ( $p < .001$ ,  $\beta = .485^{24}$ ), whereas the paternal secure base explained the 24.6% ( $p < .001$ ,  $\beta = .501$ ). The addition of the two FFI scores regarding the parental secure base continue to predict security of attachment ( $p < .001$ ,  $\beta = .583$ ), explaining the 34.3 of its variance.

Linear regressions confirmed the main hypothesis that adoption risk factors predict later outcomes. Both the characteristics of adoption considered separately (i.e. age and presence of attachment difficulties at placement) significantly predicted the rate of behavioral problems in adolescence as reported by parents. Moreover, the same risk factors later impact on the adolescent's attachment representations (i.e security and dismissing). However, when combing the effect of these two independent variables, the only significant result was found on adolescent's level of mentalization.

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<sup>24</sup> Gender was also significant ( $\beta = .185$ ,  $p = .037$ )

Lastly, linear regressions showed that maternal abilities such as reflective functioning, attachment awareness and promotion and the level of child focus play a significant role on the adolescent's attachment representations, especially on the security score. On the contrary, a high level of disappointment toward the child and the placement, negatively predicted the adolescent's attachment security. At the same time, the adolescent's perception that a secure base is available when needed impact on the security of his/her IWMs.

Since secure base was calculated on both mothers' and fathers' availability, and given that the preliminary results of paternal warmth and disappointment on security were significant, these results underline once again the importance of considering the influence of maternal and paternal representations while analyzing the emotional and social adjustment of the adoptee.

#### **4.3.5. Interactions effects of parental representations**

This study explored the moderating effect of parental characteristics on the relationship between pre-adoptive risk and attachment, as for pre-adoption risk and behavioral outcomes.

##### **4.3.5.1. Mothers**

Mothers interview were collected by all the three countries. Thus, I tested the possible moderating effect of various maternal representations (i.e. maternal warmth, attachment awareness and promotion, child focus, and anger scores), in addition to the adolescent's perception of a secure base.

As independent variables I considered both age and attachment disturbance at placement, separately<sup>25</sup> (see Table 29). No significant results were found when each of the adolescent's attachment classifications was set as dependent variable.

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<sup>25</sup> When attachment was set as outcome, 28 models have been tested for each independent variable (6 moderators on each of the 4 attachment categories). When behavioral outcomes were considered (setting the 3 broadband scales of both YSR and CBCL as dependent variables), the models tested became 36 for age at placement, and 36 for disturbances of attachment.

Table 29

*CBCL/YSR scores for behavioral problems, Interaction Analyses*

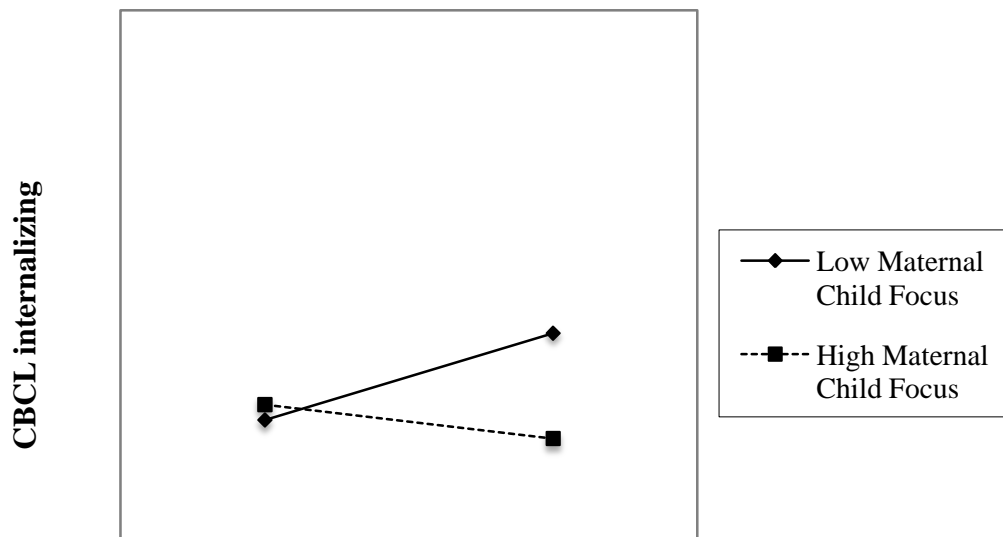
		<b>B Estimates</b>				
		<b>YSR</b>		<b>CBCL</b>		
		<b>Effect</b>	<b><math>\beta</math></b>	<b><i>P</i></b>	<b><math>\beta</math></b>	<b><i>P</i></b>
<b>Age at placement</b> (N=99)	<b>Parental</b>	Age *warmth	ns	ns	ns	ns
		Age * RF	ns	ns	ns	ns
		Age *attachment awareness/promotion	ns	ns	ns	ns
	<b>Adolescent</b>	Age *child focus	ns	ns	-1.041*	.007*
		Age *anger	ns	ns	ns	ns
		Age *secure base	ns	ns	ns	ns
<b>Retrospective DAI</b> (N=94)	<b>Parental</b>	R. DAI * warmth	ns	ns	ns	ns
		R. DAI * RF	ns	ns	-.946 <sup>1</sup>	.033 <sup>1</sup>
		R. DAI *attachment awareness/promotion	ns	ns	ns	ns
	<b>Adolescent</b>	R. DAI *child focus	ns	ns	-1.027 <sup>†</sup>	.045 <sup>†</sup>
		R. DAI *anger	ns	ns	ns	ns
		R. DAI *secure base	ns	ns	ns	ns

<sup>1</sup>. Ext. \*Int. <sup>†</sup>.Tot.

When age at placement was set as independent variable, a significant moderation effect was found on the relationship between age at arrival and behavior problems. Specifically, a negative interaction was found between age at placement and maternal child focus ( $\beta = -1.041$ ,  $p = .007$ ) in their effect on internalizing problems, as referred by parents (see Figure 27).

Figure 27

*Interaction effect of maternal child focus on internalizing problems*



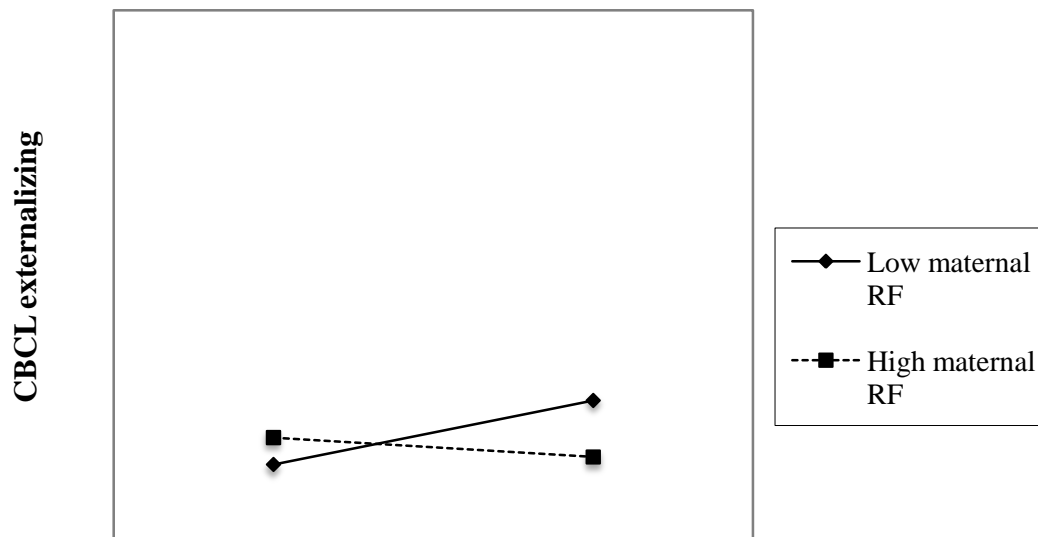
This result indicated that the effect of age at placement on internalizing problems was lower for those with mothers who were more focused on their children's needs.

When the level of attachment disturbances at placement as set as independent variable, three different moderation effects were found. Since in the first one (interaction effect of maternal child focus) the impact on the total rate of behavioral problems was very low (although significant:  $\beta = -1.027$ ,  $p = .045$ ), its graphical representation won't be reported. In the other two interaction effects, the moderating variable was the maternal reflective functioning (RF). Specifically, a negative interaction was found between attachment disturbance and maternal reflective functioning ( $\beta = -.946$ ,  $p = .033$ ) in their effect on externalizing problems, as referred by parents (see Figure 28).



Figure 28

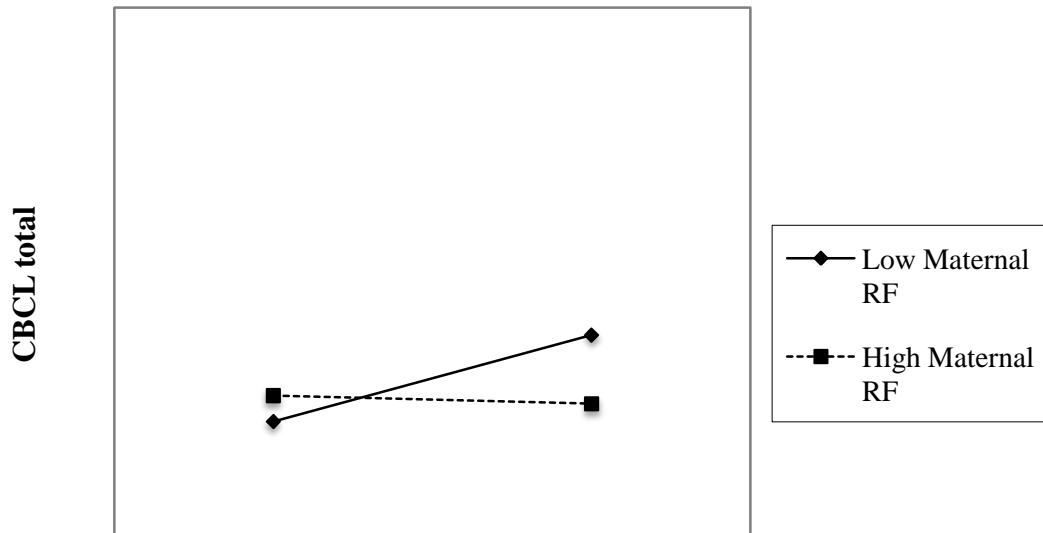
*Interaction effect of maternal reflective functioning on externalizing problems*



The effect of attachment disturbances (evaluated retrospectively) on externalizing behavior was lower for the adoptees whose mothers showed a higher ability to reflect upon the adolescent's states of mind. Similarly, maternal reflective functioning moderates also the effect of attachment disturbance on total behavioral problems, always referred by parents ( $\beta = -920, p = .035$ ) (see Figure 29).

Figure 29

*Interaction effect of maternal reflective functioning on behavioral problems*



The effect of attachment disturbances at placement on behavior problems as reported by parents was lower for the adoptees whose mothers showed a higher reflective functioning.

#### 4.3.5.2. Fathers

The same moderations analyses were run also with paternal codes<sup>26</sup>. Age and attachment disturbance at placement were used as independent variables, separately (see Table 30), whereas attachment (secure and dismissing), and behavioral broadband scales were conceived as outcomes<sup>27</sup>. The adolescent's perception of the father as a secure base is evaluated through the FFI, hence the moderating effect of this variable will be tested on the whole sample. On the contrary, the other paternal variable considered as possible moderators refers to the interview with the father, which in many cases couldn't be assessed. Thus,

<sup>26</sup> As for mothers, for each independent variable the models tested were 28 on attachment outcomes, and 36 on behavioral outcomes.

<sup>27</sup> Since in the large majority the CBCL was fulfilled by mothers, only YSR will be considered

moderation analyses of paternal warmth, attachment awareness and promotion, child focus, and anger scores, were tested in a smaller sample<sup>28</sup>.

Table 30

*FFI adolescent attachment scores for behavioral problems, Interaction Analyses*

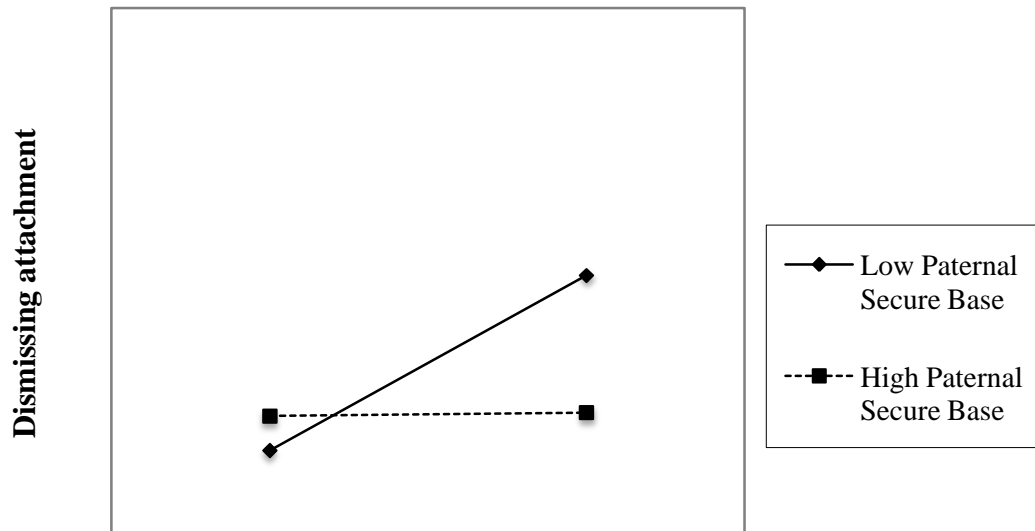
		<b>B Estimates</b>				
		<b>Effect</b>	<b>Secure*/Dismissing<sup>†</sup> attachment</b>		<b>Mentalization</b>	
			<b><math>\beta</math></b>	<b><i>P</i></b>	<b><math>\beta</math></b>	<b><i>P</i></b>
<b>Age at placement</b>	<b>Parental (N=100)</b>	Age *warmth	ns	ns	ns	ns
		Age * RF	ns	ns	ns	ns
		Age *attachment awareness/promotion	ns	ns	ns	ns
	<b>Adolescent (N=36)</b>	Age *child focus	ns	ns	ns	ns
		Age *anger	-1.070*	.045*	ns	ns
		Age *secure base	-.671 <sup>†</sup>	.010 <sup>†</sup>	ns	ns
<b>Retrospective DAI</b>	<b>Parental (N=100)</b>	R. DAI * warmth	ns	ns	ns	ns
		R. DAI * RF	ns	ns	ns	ns
		R. DAI *attachment awareness/promotion	ns	ns	ns	ns
	<b>Adolescent (N=36)</b>	R. DAI *child focus	ns	ns	1.211	.016
		R. DAI *anger	ns	ns	ns	ns
		R. DAI *secure base	ns	ns	ns	ns

When age at placement was considered as independent variable, two significant negative interaction effects were found. The first one was between age at placement and adolescent's dismissing attachment. Specifically, a negative interaction was found between age at placement and the adolescent's perception of the father as a secure base ( $\beta = -.671$ ,  $p = .010$ ) in their effect on dismissing attachment (see Figure 30).

<sup>28</sup> This subsample was constituted of Belgians and Italians internationally adopted children (N=36)

Figure 30

*Interaction effect of secure base father on dismissing attachment*

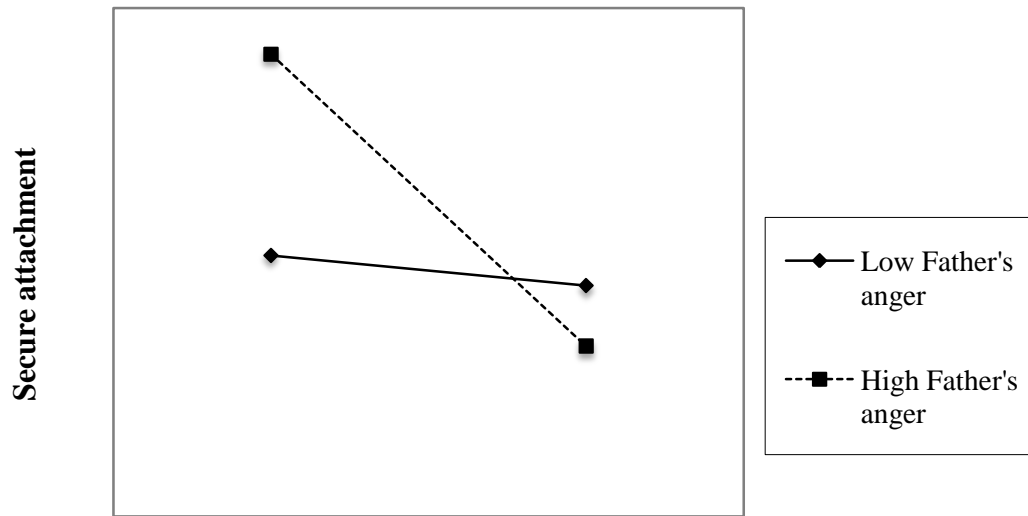


The effect of age at arrival on dismissing attachment was lower for the adoptees who perceived their fathers as a reliable secure base.

The second interaction effect was found on the smaller sample of paternal PDIs and had to do with the level of anger perceived and shown by fathers. This negative interaction was found between age at placement and the anger in the father-adolescent relationship ( $\beta = -1.070$ ,  $p = .045$ ) in their effect on secure attachment (see Figure 31).

Figure 31

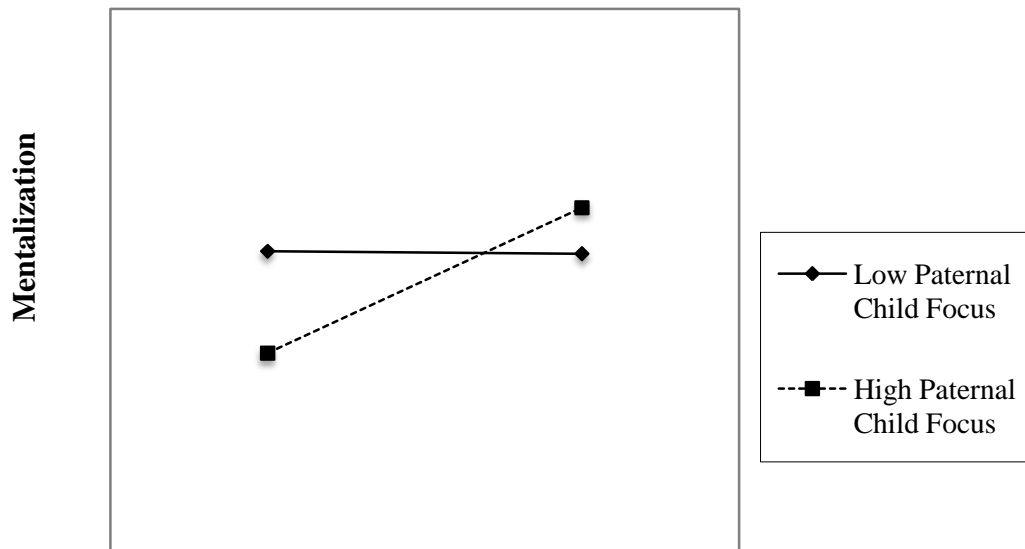
*Interaction effect of father's anger on secure attachment*



When disturbances of attachment at arrival was set as independent variable, a positive interaction was found between the DAI scores and paternal child focus ( $\beta = 1.211, p = .016$ ) in their effect on adolescent's mentalization (see Figure 32).

Figure 32

*Interaction effect of paternal child focus on adolescent's mentalization*



This result indicated that while disturbances of attachment are increasing, the paternal child focus helps the adolescent to develop a higher mentalization. In other words, the effect of attachment disturbances at placement on adolescent's reflective functioning was lower for the adoptees whose fathers were more focused on their children's needs.

Interaction analyses support the idea that maternal sensitive attitudes towards the adoptees (level of child focus and reflective functioning) can limit the effect of pre-adoption risk factors on behavioral outcomes in adolescence. Paternal variables, on the contrary, reduce or enhance the effect of age at placement on the adolescent's attachment, and those of disturbances of attachment on mentalization. In general we can state that parental representations and attitudes are important moderators of the adoptee's adjustment and attachment.

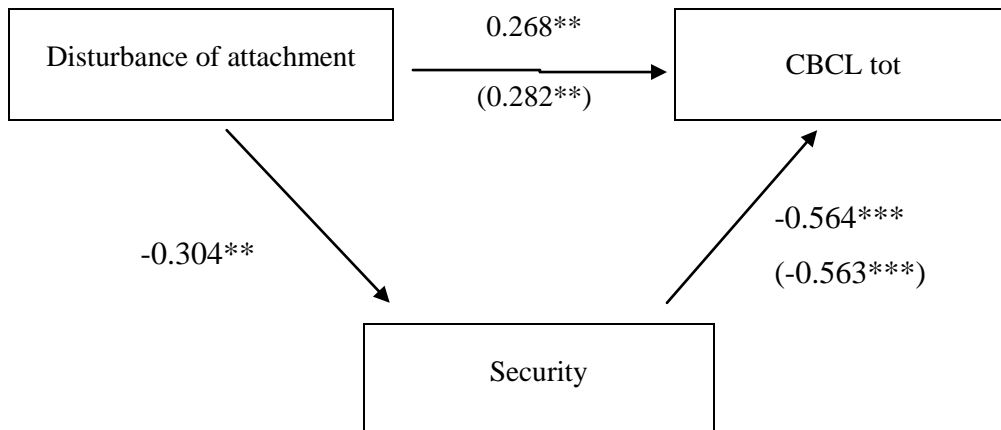
### 4.3.6. The mediating role of adolescents' attachment

Adoption's characteristics at placement (age and disturbance of attachment) are known to play a role on later attachment (security, mentalization, and coherence), as proven before in the direct effect section of the present work. Adolescent's attachment features were hypothesized to mediate the relation between pre-adoptive risk and behavioral problems. Indirect effects were tested through Sobell's test.

Results showed an indirect effect from disturbance of attachment at placement through adolescent's security to total behavioral problems. Attachment security partial mediates the direct effect of Retrospective DAIs on total behavioral problems. The direct effect of DAI on total behavioral problems was partially explained through the indirect effect of security (Sobell's  $z = 2.78, p = .005$ ). This means that total behavioral problems were explained directly by disturbance of attachment at placement, but also indirectly by the effect of DAI on security, and by security on CBCL tot (see Figure 33).

Figure 33

*Security mediates the effect of DAI on total behavioral problems*



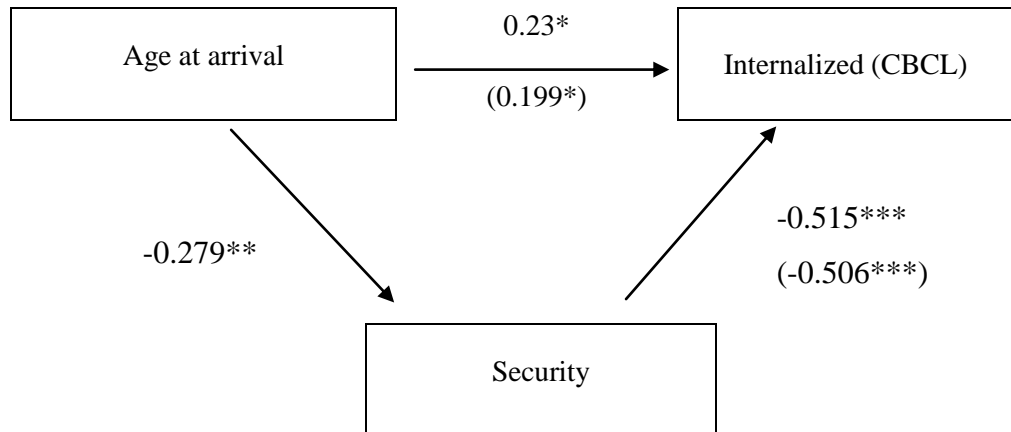
When age at placement was treated as independent variables, two mediation effects of security were found.

The direct effect of age at adoption on CBCL's internalizing problems was partially explained through the indirect effect of security ( $z = 2.54, p = .011$ ). This means that internalizing problems, as reported by parents, were explained directly

by age at placement, but also indirectly by the effect of age on security, and by security on CBCL internalizing problems (see Figure 34).

Figure 34

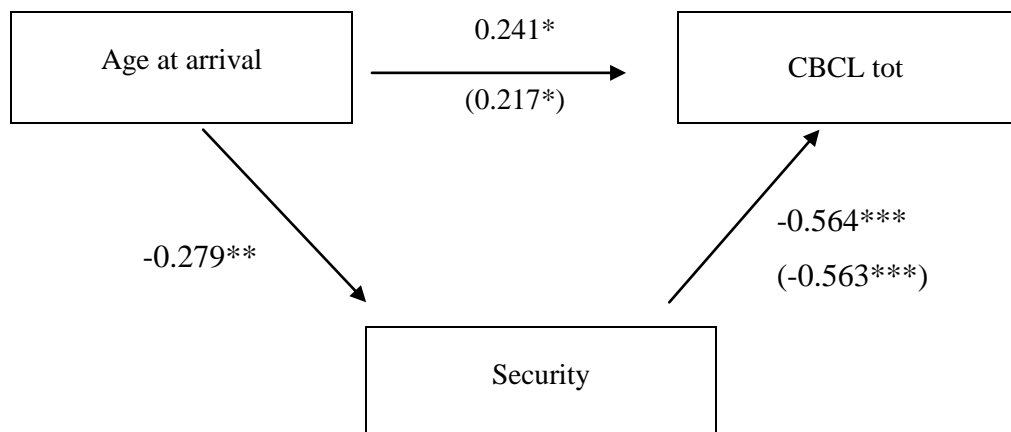
*Security mediating the effect of age at placement on internalizing problems*



The direct effect of age at adoption on total behavioral problems was partially explained through the indirect effect of security ( $z = 2.61, p = .009$ ). This means that total behavioral problems, as reported by parents, were explained directly by age at placement, but also indirectly by the effect of age on security, and by security on CBCL total problems (see Figure 35).

Figure 35

*Security mediating the effect of age at placement on total behavioral problems*





## **4.4.Discussion**

The present study was aimed at investigating attachment representations among adoptive families (mother, adoptee, and when possible, father), in which the adoptee has become a pre-adolescent or adolescent.

The first results shown in our analyses had to do with the level of attachment disturbances at placement, as referred retrospectively by their adoptive mothers. Unexpectedly, children born in the Eastern European countries did not show a higher rate of these problems. This result was consistent in two different analyses: the first one compared the Romanian adoptees with Belgians and Italians, and the second focused only on international adoptees comparing their area of provenance, and in both cases the adolescents who were born in Eastern Europe did not show a higher rate of attachment disturbances. Different reasons can support this result, which contrasts with the literature (O'Connor, et al., 1999; Rutter, Kreppner, et al., 2007; van den Dries, et al., 2009).

First of all, the publication of the studies about the effect of institutionalization in Eastern-European countries, in addition to various campaigns led by media, resounded on the local governments, and this in turn led on one hand to the amelioration of abandoned child-care, and on the other hand conducted to the suspension of international adoptions. Romanian children who participated in the present study (born between 1977 and 2000) could have lived in institutions whose conditions had already been ameliorated after the strong reorganization imposed by the government.

Nevertheless, it must also be taken into account that Romanian culture tends to keep adoption secret, especially with male adoptees, so that continuance of the family name is maintained and preserved. The families who took part in the study all disclosed the adoptive status to their children, and therefore they were more open to talk about adoption to researchers. Perhaps, this could have enhanced, among Romanian families, a selection bias which is probably present in the whole sample and that will be discussed below.

With respect to international adoptions, the comparison between the different countries of origin did not show a higher rate of attachment disturbances

within Eastern-European born. However, this lack of statistical significance could be linked to their small proportion with respect to other geographical areas of provenance, which was the lowest in the sample (10.9%).

In order to test the effect of the pre-adoption conditions on the later adjustment, regression analyses were conducted on the Romanian subsample, which collected precious information about early institutionalization and changes in caregiving experienced prior to adoption. Results did not support the hypothesis that children who had spent a period of their life in institutions could score lower on secure attachment. This result can be due to different reasons: on one hand it can derive from the recovery offered by adoption, so that the years spent with adoptive parents neutralize the negative effect of institutional life. On the other hand, this result may be due to our impossibility to control the amount of time spent in institutions: maybe these children have spent a very short time in institutional rearing, so that the effect of this adversity on later adjustment was not significant. The importance of considering the time spent in adverse conditions as the combined effect of age and type of care has been previously underlined (Howe, 2003).

Contrarily to institutionalization, in the Romanian subsample the number of changes in caregiving played a significant role on the later behavioral problems, as self-reported by adoptees. Post-hoc tests underlined an interesting result: it is not the separation *per se* that has a negative effect on the later adjustment, but the fact of being exposed to several separations can limit the later behavioral adjustment. This result underlines the importance of reducing, when possible, the distress experienced by future adoptees and should be carefully taken into account by social policies, as when programming the placement in one or more foster-care families.

The adolescent's attachment classification did not vary significantly between countries. The most represented category was the secure one, whereas disorganized attachment obtained the lower percentages (and mean scores). A similar result was underlined by the Dutch meta-analysis regarding adopted children (van den Dries, et al, 2009), despite showing different percentages (56% of secure in our sample *versus* 47% of the meta-analysis). The disparity between the present study and the meta-analytic results was even higher with respect to the

rate of disorganization (5% *versus* 31%). Although our study was not based on a longitudinal design, we can suppose that this difference can be due to the longer time spent in the adoptive family: through the years, our adolescent adoptees have had a higher chance to recover their attachment representations toward a better organization of attachment strategies, and in the direction of an earned security. Nevertheless, this difference in the rate of disorganized attachment could also be due to measurement issues (the meta-analysis included data about attachment behavior instead of attachment cognitions) , or to a stronger effect of a selection bias.

Since the previously cited meta-analysis did not find a significant moderating effect of the time spent in the adoptive family during childhood, our result underlines the importance of conducting follow-up studies at longer intervals. Another evidence of the time needed to recover the pre-adoption disadvantage, is that similar results have been found in other longitudinal studies collecting data a few years after adoption (Hodges, et al., 2005; Pace, et al., 2012). In order to allow the plasticity of the IWMs, the adoptee must be faced with his/her new positive relational model for a long time, as underlined by Schofield and Beek in their *Attachment Handbook for Foster Care and Adoption* (2006).

The behavioral adjustment of adoptees differed between the countries of adoption. Specifically, Belgian adoptees reported to suffer from higher depressive, thought, and attention problems, but also from aggressive and externalized problems (YSR). This result may be due to cultural differences (e.g. Belgians less inclined to conceive and accept aggressive and externalizing problems) that could be tested in future research by comparing the standardized scores, adjusted for each country's norms. It is, however, important to note that no significant differences were found when confronting the parental reports of their adoptees' behavior (CBCL).

Romanian, Belgian, and Italian adoptees have been also treated and analyzed as a unique cross-country adoptive sample, despite being aware of the profound differences between them. The results derived from these analyses showed that adverse pre-adoption conditions have been proven to impact on the later behavioral and emotional regulation, as strongly stressed by the literature (Brodzinsky & Pinderhuges, 2002; van den Dries, et al, 2009). Linear regressions

confirmed the main hypothesis that adoption risk factors (i.e. age and presence of attachment difficulties at placement, considered separately) significantly predicted: a) the rate of behavioral problems in adolescence as reported by parents (CBCL), and b) the adolescent's attachment representations (i.e. security and dismissing classifications). These two risk factors seemed to act independently because when combining their effect, the only significant result was found on adolescent's level of mentalization.

Moving further from a simple cause-effect association, this relationship was hypothesized to be mediated by adolescent's representations of attachment. Attachment security in adolescence was found to partially mediate the effect of adoption's characteristics (especially age at arrival) on later behavioral problems, as reported by parents (CBCL): the effect of age at adoption on behavioral adjustment is reduced when considering the mediating role of attachment security. Since attachment security is developed by the child through the relational models offered by significant adults, these results underline the active role played by the adoptee and by its relational environment on the later adjustment, which is not passively determined by age at adoption. As a matter of fact, the adolescent's perception that a secure base is available when needed, was found to predict the security of his/her IWMs. When studying complex phenomenon such as the adoptive practice, an ecological perspective can help taking into account all the important factors linked to both individual and his/her context of life (Bronfenbrenner, 1979).

The centrality of the family relationships for the adopted adolescent was also underlined by the analyses of parental interviews. Firstly, it must be noted that adoptive mothers and fathers<sup>29</sup> tended to represent their child, their relationship with him/her, and themselves as parents in a positive way. This result suggests that, on average, the adoptive placement in our sample had succeeded. Moreover, maternal representations such as attachment awareness and promotion, level of child focus, and reflective functioning played a significant role on the adolescent's secure attachment representations. On the contrary, the level of parental (maternal and, when present, paternal) disappointment toward the adolescent reduced the level of attachment security shown by the adoptee. The latter result may be due to

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<sup>29</sup> When paternal interviews were collected

the effect of a bidirectional relationship in which difficult children have less chance to show secure attachment, and in the meantime their parents perceive them as disappointing.

It was hypothesized that the relationship between adoption characteristics and the emergence of behavioral problems could be moderated by parental representations about the adolescent and the relationship with him/her. Moderation analyses supported the idea that maternal sensitive attitudes towards the adoptee (level of child focus and reflective functioning) can limit the effect of pre-adoption risk factors on behavioral outcomes in adolescence. Moreover, with respect to the role of the father, the effect of age at arrival on dismissing attachment was much lower for the adoptees who perceived their fathers as a reliable secure base. Unexpectedly, maternal PDI's values were found to moderate the effect of pre-adoption risk on behavioral outcomes, whereas father perceived as a secure base moderates an attachment outcome (dismissing classification). A larger collection of father's interviews would allow deepening these interesting preliminary issues that emerged. Overall, it can be stated that, consistent with the literature (Habersaat, et al., 2011; Palacios & Brodzinsky, 2010; Palacios, et al., 2009; Stams, Juffer, & van IJzendoorn, 2002), variables related to the family's emotional context have been proven to bear a connection with the adoptee's attachment and behavioral adjustment.

#### **4.4.1.Limitations**

First, it is important to note that the cross-sectional nature of the present study did not allow the measurement of changes in attachment over time. Previous literature, and the retrospective measurement of attachment disturbances, can help interpret the adolescent's attachment as the result of a possible change occurred over the years, but a longitudinal design would do better justice to the process of developmental issues in adoption. Since attachment has not been much investigated in late childhood and adolescence, once the collection of the control group data among non-adopted peers will be completed, further considerations about the adopted adolescents' attachment will be possible.

Sample size and recruitment is always a critical point of studies analyzing specific populations, such as adoptees. Adoption is regulated by specific privacy rules, which make hard to contact the adoptive families. Moreover, the complex data collection that characterized the present study required a high level of commitment from the participants: the fact of being interviewed and recorded, in addition to the involvement of all the family members, could have limited the participation. On the contrary, families who decided to participate could have been more motivated and maybe better adjusted. This selection bias could have been even stronger in a cultural context like the Romanian one (in which the adoptive status of some children sometimes is still kept secret), because families who accepted to talk about their family relations could constitute a specific and less representative subsample. Unfortunately, due to the reasons just highlighted, it would be almost impossible to use a random selection of participants, which improves the generalizability of the results. Similarly, another problem linked to the sample collection is due to the low percentage of Italian families, that will be overcome by implementing another Italian subsample collected by the Trento's University team, not yet available.

The present study collected a large amount of qualitative and quantitative information. The use of semi-structured clinical interviews allowed deepening the attachment issue much more than with self-report questionnaires; in contrast, such a data collection limits the research resources and lead to a smaller sample. However, the reduced dimensions of the present study's sample can be compensated for the richness of the information gathered, obtained with a large set of measures. Furthermore, the uncommon nature of this topic should be note, since only a few studies addressed the issue of attachment among adolescents who had been adopted in infancy or in childhood (Beijersbergen, et al., 2012; Fava Vizziello, Boccanegra, Simonelli, Calvo, & Petenà, 1999; Rutter, Colvert, et al., 2007), although adopted adolescents are over-represented in the psychiatric consultations (F. Juffer & van Ijzendoorn, 2005).

With this regard, it is very important to note that the present study constituted a cross-country comparison that included two different forms of adoption: domestic and inter-country. Since no subjects in the sample were internationally adopted from Romanian (due to the suspension of this practice), it

was not possible to compare these two different forms of adoption. Moreover, the inter-country provenance of the participants, as well as the small amount of Italian participants, complicated the interpretations of the results, whose differences could be due to cultural issues; this aspect was difficult to control with such a small sample size.

Nevertheless, I firmly believed in the importance of conducting in any case one of the first cross-country comparisons about adoption, applying a wider point of view on this world-wide phenomenon. Moreover, it must be noted that, after the striking results shown by the English and Romanian Adoptees Study Team about the deprivation shown by Romanian international adoptees, this is the first study, to our knowledge, analyzing the conditions of the same children adopted within their borders. As a future perspective, cross-country agreement on interviews' coding (both with parents and adolescents) could be calculated, even if it must be once again underlined that every team was formed by at least two reliable coders (trained and certified by the main authors).

The present study leaves a few questions unanswered. The strong interaction effect played by the adolescent's perception of the father as a secure base (and not by the mother) on his/her attachment is very interesting and should be further investigated with an analysis of father's representations of the adoptee and of their relationship on a larger sample. The analyses conducted on international adoptive fathers could serve as a first step to investigate the paternal role, which should be increasingly considered in the literature for its implications on the adolescents' development (Benbassat & Priel, 2001) The inclusion of the father's point of view in psychological research becomes even more important in adoptive families, due to their important role already detected by Rosnati and Marta (1997).

Another issue that remains unanswered has to do with pre-adoption conditions that unfortunately were not available in almost half of the sample. The effect of the changes in caregiving on later socio-emotional and behavioral adjustment would have been an interesting investigation to test on a larger sample.

To conclude, this study constitute an interesting starting point in the cross-country comparison of adolescent adoptees. With the necessary limitations and precautions

in interpreting and generalizing the results, the present study has highlighted interesting aspects and could help defining new research perspectives.

A better understanding of the mechanisms involved in the adoptees' well-being may direct better policies and interventions (Serbin, 1997). The importance of the paternal figure, for instance, could take advantage of a parent training aimed at sensitizing fathers toward attachment issues and toward acting as a secure base. Another interesting application has to do with pre-adoption experiences: if it is not the separation *per se* to act as a major risk factor, this must be considered by judges, psychologists, and social workers while planning the individual project of life of an abandoned child, for instance by limiting the changes of foster care families, as it often happens.





## 5. CONCLUSIONS

The specific aims of the present investigation were to analyze the role of attachment in the adoption process in two very different phases of the adoptive family life cycle, and with very different samples. The first months after placement, as well as the sensitive period of adolescence, constitute the less investigated phases of the adoptive family's life cycle. Therefore, the role of attachment was analyzed in both of them, even if the different nature of the two studies sometimes makes difficult to strongly link them.

The first study used a microgenetic design in order to allow a better comprehension of how adoptive children become attached to new caregivers. To our knowledge, just two studies (Stovall & Dozier, 2000, 2004; Pugliese, et al, 2010) collected quantitative data regarding the attachment construction in non-traditional families. Nevertheless, the unique one concerning adoptive families collected just a few biweekly observation of attachment behavior, whereas our aim was to collect a large amount of data, in order to account for the possible variations over time and to try to model the potential trends in the attachment development.

Adoptees always experience early separations. Psychological disciplines (and the common sense) believe that these separations are likely to reduce the later capacity to experience and develop a trusty and confident relationship, or to develop a secure attachment. The first study underlined that in our sample, Korean-born adoptive babies and toddlers highly refer to the new caregiver when distressed and are able to be soothed. Even if this behavior is characteristic of secure attachment, it was often accompanied by other insecure behavior, such as not being able to calm down or not referring to the caregiver when needed. Since the attachment theory (developed on normative samples) shows that after the first year the developed pattern of attachment are strengthened by repeated experiences (Marvin & Britner, 2008), children who lived a change in caregiving may need more time to adapt once again to a possibly different model of relationships offered by adoptive parents. The results obtained through Study 1 accounted for

the rapid and frequent changes in socio-emotional development and in the adoptive family life cycle. The high variability of attachment behavior, in addition to the presence of an identifiable stable pattern only in half of our sample, can be interpreted as the need for the new experiences to settle, before the child can integrate and repeat over time a coherence and stable relational strategy, especially when distressed.

Adoptive parents must be accompanied not only in showing a sensitive caregiving and in offering the child a secure base, but also in interacting with the child in the most reliable way. This predictability could help the child develop a confidence toward the parent, and could probably expedite the development of a stable pattern of attachment. In addition, the offering of an expected and predictable environment on the level of daily routines and interactions, can help these children who experienced drastic and radical changes, to develop an internal security, which doesn't have to do only with attachment.

The second study focused on later adjustment of adoptees, specifically pre-adolescents and adolescents. This particular age was chosen because it constitutes a sensitive period for attachment issues, and nonetheless because, at that age, the adoptees have passed a sufficient number of years within their family. Study 2 was aimed at testing the effect of adoption characteristics on two types of outcomes: behavioral problems (largely considered in the literature), and the less investigated field of attachment in adolescence. Parental representations were believed play a role on this relationship. Moreover, attachment was not only considered as an outcome itself, but was seen to mediate the relationship between adoption characteristics and behavioral outcomes.

Results have proven that pre-adoptive risk, and adoption characteristics, impact on behavioral and on socio-emotional outcomes. Nonetheless, attachment security can be considered a mediator of this relationship: behavioral problems reported by parents were explained directly by the child's age at placement, but also indirectly by the effect of age on security, and by security on behavioral problems. In a future perspective, longitudinal studies will help the comprehension of the change in attachment over time, allowing also further understandings of the role played by attachment on social and behavioral adjustment.

Another important finding of Study 2 has to do with the adolescent's permeability to his relational context, universally proven and recognized in normative samples, but certainly less considered in adoptive families. Parents who are highly focused on their adolescent's needs, help reducing the effect of risk factors on later behavioral adjustment. In a symmetrical way, the adolescent's perception of the mother's and father's practical and emotional availability helps him/her develop a secure attachment, even when adoption was characterized by higher risk factors. This interesting role played by fathers should be deeply analyzed in further studies, including a non-adopted control sample. The comparison between the paternal role played in these two different types of families would highlight, for instance, whether the importance of the paternal secure base for the adolescent's attachment is a specificity of adoptive families. Adoptive fathers have been shown to be psychologically closer to their adoptive children, and this high parental commitment could be at the basis of the previously cited results.

These findings highlight another important issue: adolescent's adjustment is not completely predicted by characteristics at placement (although their effects have been largely proved) but, in the adoptee's behavioral and socio-emotional adjustment, the family environment plays an important role. This finding constitutes the further evidence of the active role played by each member of the adoptive family, as well as the confirmation of the recovering value of adoption.

Contrarily to what the literature has underlined about the well-being of Eastern-European adoptees, in our cross-countries sample Romanian adolescents appeared to be well adjusted. Even if a large meta-analytic study shows that inter-country adoptees are better adjusted than domestic adoptees (Juffer & van Ijzendoorn, 2005), this result could be linked to the lower complexity of the adaptation required to these adolescents, who did not have to face the radical change of context and language required to inter-country adoptees. With respect to their pre-adoptive experience, unfortunately we don't have access to the amount of time these children have been institutionalized. Thus, we can just suppose that this positive adjustment could be due to the reparatory adoptive experience, or to the short time spent in overcrowded institution, or to the amelioration of the child-care system following the well-known unfortunate situations of the Nineties. But the

more plausible explanation of this positive adaptation could be linked to a selection bias, which in the Romanian sample could be even stronger, due to the fact that the families who took part in the study, all belonged to those who disclosed the adoptive status to their children.

With this regard, it is proper to highlight the possible selection bias, that could have impacted on the positive average level of behavioral and socio-emotional adjustment of adolescents in Study 2: well-adjusted adoptive families are more likely to adhere to research projects. Besides, adoptive parents are very sensitive to research issues: as Lisa Serbin (a developmental psychologist and adoptive mother) underlined in 1997, researchers have important obligations to participating families, and they must be careful while defining their recruitment procedure, since this aspect can strongly impact the rate and type of final participants (Serbin, 1997).

The combination of domestic and inter-country adoptions certainly constitutes another limitation of Study 2. As Romanians impede international adoptions since 2001, future research could focus on those countries applying both this form of adoption by comparing the psychological adjustment of children adopted within their national borders, with children born in the same country but adopted abroad. These studies would deeper examine the possible higher risk linked to such a radical change of cultural environment, providing elements for the debate about ethical issues related to international adoption.

To conclude, Study 2 allowed for one of the first cross-countries comparisons of adoptees. I strongly believe in the usefulness of these inter-country research designs, since I believe that intercultural is a feature of adoption, even of domestic one: if we consider the personal and cultural heritage that each child and each couple of parents bring with themselves at the adoptive placement, adoption can be considered as an intercultural exchange. Unfortunately, the large amount of data collected, in addition to the reduced size of the subsamples, could not allow the interpretation of many results in light of cultural differences, nonetheless some significant results emerged, underlying the possible weight of cultural issues on a macro-system level (Bronfenbrenner, 1979).

The two studies included in the present dissertation highlighted the notable rate of change in the adoptees attachment. On one hand Korean-born children showed a high variability of attachment behavior over time, with some of them being able to develop a more stable pattern. On the other hand, adolescent who at placement showed disturbances of attachment seemed able to recover and develop an organized attachment representation in most cases. Variability and change over time are two features that characterize adoption as an ongoing process, an attribute that followed as a *fil rouge* my work. Although considering adoption as “in progress” leaves space for positive (but also negative) changes, this conception implies a strong methodological prudence, and underlines the importance of longitudinal research designs including follow-ups distant in time. In the present dissertation, the measurement of attachment has left space for a great amount of data, which in the first study was characterized by daily repeated observations, whereas in the second study used semi-structured interviews. Both these choices had the advantage of collecting very interesting and rich information, but at the same time they limited the width of the samples.

### **5.1. Implications for practice**

Research on adoption can potentially be useful in elucidating developmental issues, as well as helping parent and professionals to understand and meet the need of adopted children and their families.

From a theoretical point of view we can state, considering limitations in generalizability, that early adopted children who experienced a separation from a major caregiver during the first year of life, are able to use the adoptive parent as a secure base from the first days after placement. The offer of a stable caregiver, highly committed to bond with the child, seems to be a sufficient condition to become a secure base/safe haven for the child in a relatively short time. However, the definition of a stable pattern of attachment behavior seems to need a longer exposure to the new relational experiences.

This permeability to the relational environment, well known in traditional families but much less considered in adoptive ones, do not only characterize the first months after placement, but keeps being central even later in development.

Adopted adolescents' attachment and behavioral adjustment are influenced by parental representations even in a developmental phase in which the link with the parents is released, in order to enhance the relationships with peers.

The present findings can also provide a few useful implications for practice and social policies. The first practical inference has already been discussed and has to do with the pre-adoption experience. The fact that it is not a single separation from the caregiver, but the accumulation of this negative incidents, to impact on later adjustment, must be considered by all practitioners working with minors (judges, psychologists, and social workers) while planning the interventions for abandoned children.

Since adoption, especially international one, always implies radical changes that twist the child's usual habits, practitioners working with adoptive parents (as well as with prospective adoptive couples), should stress the importance of offering a reliable and stable environment, also through predictable behavioral responses to child distress, in order to help the child feeling secure. As underlined by Gillian Schofield and Mary Beek (2006), being present and available, and acting constantly as a responsive family environment, constitutes an "intensive treatment" which offers therapeutic care 24 hours a day.

With respect to adolescence, the high maternal and paternal commitment and availability towards their adoptive son/daughter, was shown to promote a better socio-emotional and behavioral adjustment. Hence, parents commitment and sensitivity toward the adolescent's need should be improved through parent training and support. Usually, these types of post-adoption services are limited to the first year after placement. Nevertheless, in light of the dynamicity of the adoptive process, supports offered to adoptive parents should keep on being available over time, adapting their content to the developmental tasks of the adoptee's specific age. For instance, adoptive parents should be taught to act as a secure base and to continue being available even when, at this age, the adoptee can act as retreating from their contact and help, obviously without being intrusive.

The sense of security developed during the time spent within the adoptive family becomes precious during adolescence: security of attachment allows the adolescent not only to develop more positive relationships (friendships and romantic ones), but also to better explore his/her adoptive status. At this age, the

adoptee starts questioning his/her condition in a deeper way, wondering about his/her own origins and future: in order to do that, the feeling of a safe haven is a fundamental starting point.

All these practical implications can be used as reference not only when offering psychological support to the adoptive family, but also before its birth, when thinking about the eligibility of a person to become adoptive parent. Parental commitment is usually high in adoptive families, but this is not a fortuitous event. On the contrary, it may be a sort of necessary requirement for adults who decide to take care of a child who often has been deprived and hurt, who suffered separation, and consequently who brings to the new placement a set of behavioral and psychological strategies, which have helped them survive difficult experience (Howe, 2006). Helping the parents identifying, recognizing, and lastly satisfying their children's needs, will facilitate positive outcomes.





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# 7. ATTACHMENTS

## STUDY 1

### *The Parent Attachment Diary*

- |   |  |        |
|---|--|--------|
| 1 | Example of PAD fulfilled by an adoptive parent | p. 206 |
| 2 | Example of coding sheet                        | p. 210 |

## STUDY 2

### *The Friends and Family Interview:*

- |   |              |        |
|---|--------------|--------|
| 3 | Protocol     | p. 211 |
| 4 | Coding sheet | p. 215 |

### *The Parent Development Interview:*

- |   |              |        |
|---|--------------|--------|
| 5 | Protocol     | p. 217 |
| 6 | Coding sheet | p. 217 |

- |   |  |        |
|---|--|--------|
| 7 | <i>The Disturbance of Attachment Interview</i> (Italian) | p. 220 |
|---|--|--------|

### Documents used in the first contact with adoptive families at the University of Torino

- |    |                          |        |
|----|--------------------------|--------|
| 8  | Letter to the adolescent | p. 238 |
| 9  | Letter to parents        | p. 240 |
| 10 | Informed consent         | p. 243 |

# DAG: Diario dell'Attaccamento per i Genitori<sup>1</sup>

Data di nascita:

30/9/2009

Codice del genitore: \_\_\_\_\_

Data di compilazione:

18/7/2010

Codice del bambino:

AR04M

18

## Istruzioni:

Cerchi di rispondere il più onestamente possibile a tutte le domande. Non ci sono risposte "giuste" o "sbagliate".

Stia tranquillo/a che né il suo nome né quello del suo bambino compariranno in alcuna parte di questo formulario. Il formulario sarà identificato con un codice numerico e sarà utilizzato solo dai membri del gruppo di ricerca.

Il diario funziona meglio se compilato ogni sera. Se, per qualunque ragione, non riuscisse a compilarlo una sera, lo faccia la mattina dopo come prima cosa. Per favore, non lo compili mai più tardi.

Ho compilato questo diario:



Alla fine della giornata



Come prima cosa il mattino successivo

Per le domande 1-3 cerchi di pensare a *uno specifico evento successo oggi*. Non usi lo stesso evento per rispondere a più di una domanda.

1. Per rispondere a queste domande pensi a una volta in cui, oggi, il suo bambino si è fatto male (può essere una cosa qualsiasi, come cadere, sbucciarsi un ginocchio, urtare contro qualcosa, ...)

Descriva la situazione in 2-3 frasi, includendo il modo in cui lei ha risposto al suo bambino:

SI È MORNICATO LA LINGUA CON I DENTI USCIVA UN PO' DI SANGUE. SI È  
MESSO A PIANGERE MENTRE ERA SUL PASSEGGINO. L'HO TIRATO SU, HO  
CONTROLLATO COSA SI ERA FATTO E GLI HO DATO UN PO' D'ACQUA. HA  
PIAGNUCIATO UN PO', POI SI È CALMATO

- A. Come il suo bambino le ha fatto capire che si era fatto male? *Numeri soltanto le condotte che il suo bambino ha manifestato, nell'ordine in cui si sono verificate.*

- Ha guardato verso di me per essere rassicurato
- Se ne è andato per conto suo
- Ha fatto come se niente fosse
- Ha manifestato rabbia, frustrazione (per es., ha battuto i piedi, ha scalciato, ...)
- Mi ha chiamato
- Ha guardato brevemente verso di me, poi ha distolto lo sguardo e ha continuato a fare ciò che stava facendo
- E' venuto da me
- Ha voluto essere preso o tenuto in braccio, si è proteso verso di me
- Ha pianto
- Non ha dato segno di aver bisogno di me o di volermi
- Ha pianto rimanendo dov'era, non mi ha chiesto niente
- Si è avvicinato a me ma senza toccarmi
- Altro (anche più di una)

- B. Dopo che lei ha risposto al suo bambino, cosa ha fatto il piccolo? *Numeri soltanto le condotte che il suo bambino ha manifestato, nell'ordine in cui si sono verificate.*

- Si è subito calmato e tranquillizzato
- Mi ha spinto via con rabbia o frustrazione
- Ha continuato a giocare, come se non si fosse accorto di me
- Ha battuto i piedi o scalciato
- Mi ha colpito o tirato un calcio
- E' rimasto agitato, era difficile da consolare
- Si è allontanato da me con rabbia o frustrazione
- Non ha mostrato in nessun modo di aver bisogno del mio aiuto
- Mi ha ignorato
- Si è tranquillizzato ma poi è stato di nuovo piagnucoloso
- Si è girato dall'altra parte quando l'ho preso in braccio o l'ho toccato
- Si è rannicchiato contro di me o si è aggrappato a me fino a quando non si è calmato
- Non mi ha permesso di tenerlo in braccio facilmente, ma è rimasto agitato (ha inarcato la schiena, mi ha allontanato con le braccia)
- Si aggrappava a me o mi seguiva se provavo a metterlo giù o ad allontanarmi
- Si è voltato e si è allontanato camminando o gattonando, come se non ci fosse niente che non andava
- Altro (anche più di una)



2. Pensi a una volta in cui, oggi, il suo bambino si è spaventato o impaurito per qualcosa (escluda però ogni genere di separazione, come metterlo giù, allontanarsi, ...)

Descriva la situazione in 2-3 frasi, includendo il modo in cui lei ha risposto al suo bambino:

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A. Come il suo bambino le ha fatto capire che era a disagio? *Numeri soltanto le condotte che il suo bambino ha manifestato, nell'ordine in cui si sono verificate.*

- Ha guardato verso di me per essere rassicurato
- Se ne è andato per conto suo
- Ha fatto come se niente fosse
- Ha manifestato rabbia, frustrazione (per es., ha battuto i piedi, ha scalciato, ...)
- Mi ha chiamato
- Ha guardato brevemente verso di me, poi ha distolto lo sguardo e ha continuato a fare ciò che stava facendo
- E' venuto da me
- Ha voluto essere preso o tenuto in braccio, si è proteso verso di me
- Ha pianto
- Non ha dato segno di aver bisogno di me o di volermi
- Ha pianto rimanendo dov'era, non mi ha chiesto niente
- Si è avvicinato a me, ma senza toccarmi
- Altro (anche più di una)

B. Dopo che lei ha risposto al suo bambino, cosa ha fatto il piccolo? *Numeri soltanto le condotte che il suo bambino ha manifestato, nell'ordine in cui si sono verificate.*

- Si è subito calmato e tranquillizzato
- Mi ha spinto via con rabbia o frustrazione
- Ha continuato a giocare, come se non si fosse accorto di me
- Ha battuto i piedi o scalciato
- Mi ha colpito o tirato un calcio
- E' rimasto agitato, era difficile da consolare
- Si è allontanato da me con rabbia o frustrazione
- Non ha mostrato in nessun modo di aver bisogno del mio aiuto
- Mi ha ignorato
- Si è tranquillizzato, ma poi è stato di nuovo piagnucoloso
- Si è girato dall'altra parte quando l'ho preso in braccio o l'ho toccato
- Si è rannicchiato contro di me o si è aggrappato a me fino a quando non si è calmato
- Non mi ha permesso di tenerlo in braccio facilmente, ma è rimasto agitato (ha inarcato la schiena, mi ha allontanato con le braccia)
- Si aggrappava a me o mi seguiva se provavo a metterlo giù o ad allontanarmi
- Si è voltato e si è allontanato camminando o gattonando, come se non ci fosse niente che non andava
- Altro (anche più di una)

3. Pensi ad una volta in cui, oggi, lei e il suo bambino vi siete separati (lei è uscito/a di casa, è andato/a in un'altra stanza, l'ha messo giù, ecc., però non consideri come separazione il metterlo a dormire)

Descriva la situazione in 2-3 frasi, includendo il modo in cui lei ha risposto al suo bambino:

PER LA PRIMA VOLTA ERA IN BRACCIO A MIO FRATELLO CHE LO HA PORTATO IN GIRO PER CASA SUA MENTRE IO RIMANEVO IN CUCINA. NON SI E' TURBATO, E' RIMASTO TRANQUILLO. QUANDO E' TORNATO L'HO SALUTATO E LUI MI HA SORRISO

A. Come ha risposto il suo bambino alla separazione? Numeri soltanto le condotte che il suo bambino ha manifestato, nell'ordine in cui si sono verificate.

- Ha pianto, urlato o gridato
- Ha fatto come se niente fosse
- Mi ha chiamato
- Ha voluto essere preso o tenuto in braccio
- Mi ha colpito, tirato un calcio o mi ha spinto via
- Se ne è andato per conto suo
- Mi ha seguito
- Si è aggrappato a me, non voleva lasciarmi andare
- E' stato contento di continuare a fare quello che stava facendo
- Ha manifestato rabbia, frustrazione (per es., ha battuto i piedi, ha scalciato, ...)
- Era agitato, ma non ha dato segno di aver bisogno di qualcuno
- Ha piagnucolato o pianto brevemente e ha continuato a fare quello che stava facendo, non mi ha guardato
- Altro (anche più di una)

B. E qual è stata la reazione immediata del suo bambino quando l'ha rivista? Numeri soltanto le condotte che il suo bambino ha manifestato, nell'ordine in cui si sono verificate.

- Mi ha salutato (per es., mi ha sorriso, mi ha chiamato per nome, mi ha detto "ciao")
- Ha battuto i piedi o scalciato
- Ha fatto segno di voler essere tenuto o preso in braccio
- Mi ha colpito, tirato un calcio
- Ha pianto ed è rimasta dov'era
- Ha pianto, urlato
- E' venuto da me
- Mi ha portato un giocattolo o un altro oggetto
- Si è girato dall'altra parte quando l'ho preso in braccio o l'ho toccato
- Era agitato, ma sono riuscito a calmarlo facilmente
- Si è rannicchiato contro di me o si è aggrappato a me fino a quando non si è calmato
- Non mi ha permesso di tenerlo in braccio facilmente, ma è rimasto agitato (ha inarcato la schiena, mi ha allontanato con le braccia)
- Piagnucolava per conto suo (potrebbe avermi guardato brevemente)
- Voleva essere tenuto in braccio, piagnucolava e voleva essere messo giù, poi voleva di nuovo essere preso in braccio
- Ha continuato a fare quello che stava facendo (come se non si fosse accorto di me)
- Mi ha guardato rapidamente, poi ha distolto lo sguardo, non ha sorriso o salutato
- Ha cominciato ad avvicinarsi a me, poi si è voltato e se ne è andato da un'altra parte
- Era agitato, ma NON sono riuscito a calmarlo e/o a consolarlo facilmente
- Altro (anche più di una)

4. Il suo bambino ha visto un membro della sua famiglia biologica oggi?  SI  NO

Chi?

Era la persona che lo accudiva? (il caregiver principale)

- SI  NO

## Parent Attachment Diary

CG/BP code \_\_\_\_\_ Scored by Marta  
A104M Child Code Date Oct. 2010 Day 18

**1. A**  
 PROX (1) 0  
 AVOID 1 0  
 RESIST 1 0

**2. A**  
 PROX 1 0  
 AVOID 1 0  
 RESIST 1 0

**3. A**  
 PROX 1 0  
 AVOID (1) 0  
 RESIST 1 0  
 No distress 1 0

**1. B**  
 PROX 1 0  
 CALM 1 0  
 AVOID 1 0  
 RESIST (1) 0

**2. B**  
 PROX 1 0  
 CALM 1 0  
 AVOID 1 0  
 RESIST 1 0

**3. B**  
 PROX (1) 0  
 CALM 1 0  
 AVOID 1 0  
 RESIST 1 0

**TOTAL SCORES**

RAW DATA	SCORE	N of OBSERVATIONS	AVERAGE
PROX SEEK (1-6)	2	4	0,5
CALMED (1-3)	0	2	0
AVOID (1-6)	0	4	0
RESISTANT (1-6)	1	4	0,25

SECURITY  
 0,25

## FRIENDS AND FAMILY INTERVIEW

Introduce the interview.

I want to get an idea about you, what sort of person you are, what you like to do, your relationships with friends and family. One thing we sort of take to be true about all people and relationships is that there are things we like best in ourselves and in other people, and other things that we like least (or not very much at all) in ourselves and other people.

So this might be something we talk about as I ask you the following questions.

Remind about right not to answer and confidentiality.

**Remember**, it's OK if you don't want to answer any of these questions if you don't feel like it, just tell me so and we'll skip it. And remember that anything you tell me is kept safe and nobody else gets to know about it, we don't tell anybody else what you say. So *feel free* to tell me anything you like.

### SECTION 1: SELF

Any questions for me before we start?

Write names down for later questions about siblings.

1. **Now, could we start by getting a description of the people close to you in your family, those living in the house with you?**

What about those you are close to but not living with you?

2. **I'd like to start by getting some idea about what sort of person you are.. for example, could you tell me what sort of things you like to do?**

Choose *one* of the activities and ask for an illustration.

Can you tell me about any time you were doing [X] –like, who was there, what did you do, how did you feel, what happened in the end..

Look for adjective or phrase descriptions.

3. So you told me about things you like to do, now I'd like to ask you to give me an idea about the kind of person you are.

**What are the kinds of things that someone would get to know about you if they knew you well?**

4. **What would you say is your most favorite things about yourself, something you like about yourself best of all?**

Specific example.

Can you tell me about any time you were like that?

**What would you say is your least favorite thing about yourself, something you don't like much?**

Specific example.

Can you tell me about any time you were like that?

5. **When you are upset, what do you do?**

What happens then?

Is there someone you turn to?

Specific example.

Can you tell me about a time you were upset?

**2: SCHOOL-PEERS**

Now I'm going to ask you about what it is like for you to be at school and what it's like for you and your relationship with friends.

General description.

**6. What's it like for you at school now?**

**7. Have you taken any tests lately?**

Has it made a difference in your relationships with friends?

**8. Are you going to a new school soon?**

How do you feel about that?

Do you think it will make a difference to your relationships with your friends?

How do you think you will feel at your new school?

Do you think you'll be able to make friends easily?

If answer "yes" to going to a new school...

If more than one, probe for teacher they like best, or teacher of best subject.

**9. Now I'm going to ask you about your teacher. Do you have one teacher right now, or more than one? What's s/he like?**

What do you like most about this teacher?

Can you think of a time s/he was like that?

What do you think your teacher thinks about you?

**10. How about your friends, could you name three of your friends?**

**Who would you say is your closest friend?**

How long have you been friends?

What sort of things do you and [X] do together?

How often on average do you see [X] outside of school?

**IF NONE** ask: Would you like to have a best friend?

Specific example.

**11. What is the best thing about your relationship with [X]?**

Can you tell me about any time it was [it felt] like that?

**What is the thing you like least about your friendship w [X]?**

Specific example.

Can you tell me about any time it was [it felt] like that?

**12. Have you ever had a fight or an argument with [X]?**

How did it start?

What did you do, how did you respond?

How did it end?

How did you feel? How do you think he felt?

**13. Have you ever felt jealous of your friend?**

Specific example.

Can you tell me about a time you were jealous?

**Do you think [X] has ever felt jealous of you?**

Can you tell me about a time?

**14. What do you think [your friend] thinks about you?**

**3: PARENTS & SIBS**

Now I'd like to ask you a bit about the relationships in your family.

**15. Can you tell me a bit about your relationship with your mom?**

What's it like when you and your mom are together?  
Can you tell me about any time it was like that?

If no specific example is given ask for one to illustrate the description

**16. What is the best part of your relationship with your mom?**

Specific example.

Can you tell me about any time it was [it felt] like that?

**What is one thing you like least about your relationship with your mother?**

Specific example.

Can you tell me about any time it was [it felt] like that?

**17. What do you think your mother thinks about you?**

**18. Can you tell me a bit about your relationship with your dad?**

What's it like when you and your dad are together?  
Can you tell me about any time it was like that?

If no specific example is given ask for one to illustrate the description

**19. What is the best part of your relationship with your dad?**

Specific example.

Can you tell me about any time it was [it felt] like that?

**What is one thing you like least about your relationship with your father?**

Specific example.

Can you tell me about any time it was [it felt] like that?

**20. What do you think your father thinks about you?**

**21. Could you think of the first time you were separated from your parents?**

"Maybe when you first went to school, or went to spend a night at a friend's house.."

How old were you at the time?  
Do you remember how you felt?  
How do you think your parents felt at the time?

**IF CHILD HAS SIBS DO QUESTIONS 22-24 FOR EACH, ELSE SKIP.**

**22. Now I'd like to ask you a bit about your relationship with [your brother / your sister].**

What's it like when you and X are together?  
What sort of things do you do together?  
Can you tell me about any time?

Specific example.

Do you talk to X about things that are important or things that upset you?  
Can you tell me about a time?

Specific example.

Does he/she come to you to talk or for help?  
Can you tell me about a time?

Specific example.

3: (Continued)

23. What do you like *best* about your relationship with [X]?

Can you tell me about any time it was [it felt] like that?

What do you like *least* about your relationship with [X]?

Can you tell me about any time it was [it felt] like that?

24. What do you think [X] thinks about you?

Parental Relationships

25. I'd like to ask you about your parents again, but now it's not about your relationship with each of them, but rather how do you think they get along with each other?

Specific example.

Do they ever argue?  
How do you feel when they argue?  
Do you remember a time recently when they were arguing?  
Can you tell me how it was, what it was about?  
How did you feel?

Only if no actual arguments are mentioned.

Could you imagine how you'd feel if you saw them arguing?

26. Now, could you think back and tell me if you think your relationship with your parents has changed since you were little?

27. Thinking ahead to the future what do you think the relationship with your parents will be like, say five years from now?

Conclude the interview.

Well, you've told us so much about yourself your friends, your school and your family, and we have a much better view of who you are as a person.

Anything to add/ correct.

Is there anything else that you'd say is important about you that we missed? Something you'd like to add? Something you'd like to tell us?

Ask for feedback.

Generally, what did you think about these questions?

What questions did you find hardest? Which easiest?  
Where there any questions that were upsetting?

Remember, anything you've said to use here today is *confidential*, which means we don't tell anybody else in your family or elsewhere, everything you've told us is kept safe.

Do you have any questions for us?

***Thank you very much for your help!***

## Friends and Family Interview

### Foglio di coding

Codice intervista	T0506
Coder	Giorgia e Ilaria
Data	26/07/12

#### 1. Coerenza:

1.1 Verità	1.2 Economia (quantità)	1.3 Relazione	1.4 Modo	Coerenza Globale
2	3	3	4	3
212,216,294,424				

#### 2. Reflective functioning o mentalizzazione

2.1 Prospettiva evolutiva	2.2 Assume prospettiva mentale di:	2.2.1 Madre	2.2.2 Padre	2.2.3 Migliore amico (o altro amico)	2.2.4 Fratello/sorella	2.2.5 Insegnante
3,5	2,5	2,5	2,5	2,5		2,5
128,474,485,504		300,419	378,419	226,242,244		166

#### 2.3 Capacità di mostrare una comprensione di sentimenti/emozioni differenti, presenti nelle relazioni significative

2.3.1 Sè	2.3.2 Madre	2.3.3 Padre	2.3.4 Amico/a	2.3.5 Fratello/sorella	2.3.6 Insegnante
3	4	1	2,5		3
41,92,424	23,254,274,312	26,336,349,396	180,205,210		149

#### 3. Evidenza di disponibilità di *safe haven*/base sicura nella relazione con:

3.1 Madre	3.2 Padre	3.3 altro (specificare)
1,5	1,5	
	Però è molto grande	

#### 4. Evidenze di autostima in riferimento a:

4.1 Competenze sociali	4.2 Competenze scolastiche	4.3 Considerazione di sè
4	4	3,5
64,74,81,87,149,512	103,117	41,64

#### 5. Rapporti coi pari

5.1 Frequenza del contatto	5.2 Qualità del contatto
4	3
196	180,188,201



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**6. relazioni fraterne**

6.1 Calore	6.2 Ostilità	6.3 Rivalità

**7. Ansia e difese**

7.1.1 Ideal. Sè	7.1.2 Ideal. M	7.1.3 Ideal. P	7.2. 1 Inv. ruol o M	7.2.2 Inv. ruolo P	7.3.1 Rabbia M	7.3.2 Rabbia P	7.4.1 Deroga a Sè	7.4.2 Deroga M	7.4.3 Deroga a P	7.5 Risposte adattive
1	1	3,5	1	1	1	1	1	2,5	2,5	2,5
	463	336,349, 375,396, 501						408,411		430

**8. Differenziazione delle rappresentazioni genitoriali**

<b>3,5</b>
<b>23,479</b>

**9. Classificazioni di attaccamento**

Sicuro-autonomo	Insicuro-Dismissing	Insicuro-Preoccupato	Disorganizzato- disorientato
3	2,5	1	1
	462,469		

**10. Codici non verbali**

10.1 Angoscia e paura	10.2 Frustrazione e rabbia
2	1

**11. Note**


# Parent Development Interview

**Instructions:** For the next hour or so I will be asking you a series of questions about your relationship with your child. If you have more than one child, try to answer the questions with child in mind we are talking about today.

## A. VIEW OF THE CHILD

1. Before I start asking specific questions, could you briefly describe what (your child) is like?
2. On an average day, what would you describe as his/her most favorite moments?
3. On an average day, what would you describe as his/her least favorite moments?
4. What do you like most about (your child)?
5. What do you like least about (your child)?
6. Do you notice any particular ways in which (your child) seems to be similar to you/to your spouse/partner?
7. Are there any particular ways in which (your child) is different than you/than your spouse/partner?

## B. VIEW OF THE RELATIONSHIP

1. I'd like you to choose 3 adjectives that you feel reflect the relationship between you and (your child). (pause while they list adjectives) Could you tell me why you chose those adjectives? (Take adjectives one by one and ask for an illustration)
2. Describe a time in the last week when you and (your child) really 'clicked'? (probe if necessary: Can you tell me more about the incident? How did you feel? How do you think (your child) felt?)
3. Now, describe a time in the last week when you and (your child) really weren't 'clicking'? (probe if necessary: Can you tell me more about the incident? How did you feel? How do you think (your child) felt?)
4. Are there any experiences in (your child's) life that you feel were particularly difficult or challenging for him/her?
5. As (your child)'s relationship with you develops, how do you think it is affecting his/her development or personality?

## C. AFFECTIVE EXPERIENCE OF PARENTING

1. Could you briefly describe yourself as a parent (if parent has other children, include view of self as parent of these children if parent volunteers this information, but ask for specific examples with target child in mind).
2. What gives you the most joy in being a parent?

3. What gives you the most pain or difficulty in being a parent?
4. When you worry about (your child), what do you find yourself worrying about the most?
5. How has having (your child) changed you?
6. Do you ever feel that you really need emotional support as a parent? (Probe if necessary: What kinds of situations make you feel this way? How do you handle your feelings or needing support?)
7. Do you ever feel really angry as a parent? (Probe if necessary: What kinds of situations make you feel this way? How do you handle your angry feelings? How do you think these situations effect (your child)?)
8. Do you ever feel really guilty as a parent? (Probe if necessary: What kinds of situations make you feel this way? How do you handle these guilty feelings? What kind of effect these feelings have on (your child)?)
9. When (your child) is upset, what does he/she do? How does that make you feel? What do you do?
10. How easy or difficult is it to predict what will upset (your child)/put him/her in a bad mood?
11. What is it like for you when (your child) refuses to do what you ask him/her to do, or deliberately provokes you?
12. Do you think (your child) ever feels rejected by you?
13. How readily does (your child) accept cuddles or physical affection from you?
14. For children older than 2: How readily does (your child) come to you for comfort? (e.g. if he/she bangs a knee or is upset about something)
15. For children older than 2: How does (your child) get on with the other siblings in the house? Have you seen any shifts in the balance of power amongst them?

#### **D. SEPARATION**

Let's talk about times when you and (your child) are separated from one another.

1. What are routine separations like for (your child) and for you?
2. What is hard for you about these separations? How do you handle those feelings?
3. What is easy for you about these separations?
4. What is the longest time you have been separate from (your child)? How did you and your child feel about this separation?

**PARENTING DEVELOPMENT INTERVIEW  
CODING SHEET**

September 2007

Parent Code No ... TD503.mae

Coded by ... Marta + Georgia

Date ... 21/03/2012

Any comments on quality of interviewing or transcribing .....

PARENT AFFECTIVE EXPERIENCE CODES		
CODE	SEE ESPECIALLY LINES	RATED
<b>1. Anger:</b>		
a) Degree	242 ↓ 516-520, 597-600 ↑	2
b) Expression	522, 607	3
<b>2. Need for Support:</b>		
a) Level of Need	497, 808, 710	1
b) Satisfaction with support		3
<b>3. Guilt</b>	525	1
<b>4. Joy/Pleasure</b>	203-205, 406, 412, 410	3
<b>5. Competence</b>		3
<b>6. Confidence</b>	326-7, 342, 365, 372	3
<b>7. Level of Child Focus</b>	342, 365, 354, 434, 768	3
<b>8. Disappointment/Despair</b>	123, 141	3
<b>9. Warmth</b>	188, 778	1
<b>10. Attachment Awareness &amp; Promotion</b>	282, 290, 628, 353,	3
<b>11. Hostility</b>	276, 500, 582, 708 ↓	3
		1
CHILD AFFECTIVE EXPERIENCE CODES		
<b>1. Child Aggression/Anger</b>	241, 251	2
<b>2. Child Happiness</b>	51, 57, 58	3
<b>3. Child Controlling/Manipulating</b>	112, 135, 341, 641-644, 679	2
<b>4. Child Affectionate</b>	136, 518	3
<b>5. Child Rejecting</b>	291, 629	2
GLOBAL CODES		
<b>1. Parent Reflection on Relationship</b>	200, 204, 305, 315, 326	3
<b>2. Coherence</b>	136 (138) 342-400;	3
<b>3. Richness of Perceptions</b>	141, 200, 206	3
<b>4. Description of Relationship</b>	Confidential, Compliant, madre figura	3
List adjectives given:		
<b>5. Parent Discipline Style</b>	265, 328, 331, 387,	2/3

## **Disturbance Of Attachment Interview**

Anna Smyke, M.S. et Charles H. Zeanah, Jr., M.D.

**Adattamento italiano in forma retrospettiva**

**(rivolto a genitori di adolescenti adottati nell'infanzia)**

Gli item di questa intervista semi-strutturata indagano la presenza di segni relativi a disturbi o disordini dell'attaccamento.

Item codificati 0 = nessuno / poco: si applica quando non c'è alcun segno di una perturbazione dell'attaccamento (per esempio, il bambino differenzia chiaramente gli adulti e cerca selettivamente una persona per trovare conforto o sostegno affettivo; risponde chiaramente a questa persona nel corso delle interazioni sociali)

Item codificati 1= a volte / poco : si applica quando ci sono dei segni parziali di perturbazioni dell'attaccamento, nel senso che il bambino mostra solo raramente di avere preferenza per un adulto specifico (cercandone il conforto, controllandone la presenza mentre esplora, in particolare nelle situazioni non familiari)

Item codificati 2 = raramente / molto poco : si applica quando ci sono dei segni evidenti di perturbazioni dell'attaccamento, nei casi in cui il bambino non mostra che raramente e in maniera molto debole di differenziare fra gli adulti, o quando mostra che si potrebbe allontanare con persone non familiari.

L'item 1 è un item di apertura

In primo luogo l'intervista mira a definire se il bambino ha un adulto privilegiato, verso il quale si rivolge per il conforto e il sostegno affettivo. La valutazione è effettuata sulla base delle risposte a una serie di domande e dei rilanci riguardanti i comportamenti del bambino coi genitori. Questa valutazione è utilizzata per definire se il bambino ha stabilito un attaccamento selettivo.

Gli item 2-6: disturbi reattivi dell'attaccamento (RAD) di tipo *inibito*

Questi item della DAI riguardano il sottotipo inibito/ritiro emozionale dei RAD. Si chiede ai genitori in quale misura il bambino differenzia gli adulti e mostra una netta preferenza per un genitore (item 1), fino a che punto ne cerca il conforto, in che misura risponde all'offerta di conforto che il genitore gli offre, se mostra reciprocità nelle interazioni, e se regola le sue emozioni in maniera adeguata, mostrando sentimenti positivi come ci si attenderebbe per la sua età (o al contrario si mostra particolarmente irritabile, triste e serio, per la sua età). I punteggi degli item 1+3+4+5+6 vanno sommati, fornendo un punteggio d'inibizione tra 0 e 10 (a sottolineare che si tratta dell'applicazione della codifica del 1999/2002 sulla versione della DAI del 2005)

Gli item 7-9: RAD del tipo *disinibito*

Questi item della DAI concernono il sottotipo disinibito dei RAD. Si domanda ai genitori in quale misura il bambino differenzia gli adulti e mostra una netta preferenza per un genitore (item1), in quale misura controlla la presenza dell'adulto specie nelle situazioni non familiari, se ha la tendenza ad allontanarsi senza meta precisa, se mostra una reticenza iniziale con gli estranei oppure si lascia avvicinare facilmente anche da sconosciuti. I punteggi degli item 1+7+8a+9 vanno sommati, fornendo un punteggio di disinibizione tra 0 e 8 (da notare che si tratta dell'applicazione della codifica del 1999/2002 sulla versione della DAI del 2005)

Gli item 8b, 8c e 10-13: compaiono nella versione del DAI del 2005 ma non nella codifica del 1999/2002

Procedura:

Questo adattamento è un'intervista semi-strutturata concepita per essere somministrata dai ricercatori ai genitori adottivi (separatamente a madre e padre). I rilanci sono concessi per ottenere maggiori informazioni ma non sono esaustivi. Il ricercatore si deve sentire libero, in seguito, di indagare ulteriormente. La codifica viene realizzata alla fine dell'intervista, sulla base delle risposte ottenute.

Presentazione:

**Ora parleremo di suo figlio/a, dei suoi primi momenti trascorsi nella vostra famiglia, al fine di conoscerlo/a meglio. Le domanderò di provare a ricordarsi, il più precisamente possibile, come si comportava e cosa faceva, al momento del suo arrivo da voi e durante il suo primo anno in famiglia.**

**Questa intervista richiede circa 20 minuti, a volte di più a volte poco meno.**

**(Mi può dire quanti anni ha suo figlio?)**

Item:

**1) Aveva un adulto particolare che preferiva (uno dei genitori o un altro adulto)? Quale? Come dimostrava questa preferenza? Potrebbe fornirmi un esempio specifico?**

**Questa preferenza è cambiata durante il primo anno con voi?**

Punteggio (notare che la familiarità non deve essere confusa con la preferenza):

<u>Al momento del suo arrivo</u>	<u>Un anno dopo il suo arrivo</u>
0 Differenzia chiaramente gli adulti e mostra una preferenza per uno dei due	0 Differenzia chiaramente gli adulti e mostra una preferenza per uno dei due
1 All'occasione segnala una preferenza per un adulto particolare	1 Sporadicamente segnala una preferenza per un adulto particolare
2 Mostra raramente o in maniera minima una preferenza per un adulto	2 Mostra raramente o in maniera minima una preferenza per un adulto



**2) Sembrava poco interessato a interagire o relazionarsi con gli altri? Era sempre così o soltanto a volte? Questo succedeva perché si ritirava in se stesso? Perché era spaventato/impaurito? Per disinteresse?**

(E' cambiato qualcosa tra il momento del suo arrivo in famiglia e la fine del primo anno con voi?)

Punteggio:

<u>Al momento del suo arrivo</u>	<u>Un anno dopo il suo arrivo</u>
0 Chiaramente interessato ad interagire/ relazionarsi con altre persone	0 Chiaramente interessato ad interagire / relazionarsi con altre persone
1 A volte interessato ad interagire/ impegnarsi(relazionarsi con altre persone	1 A volte interessato ad interagire / relazionarsi con altre persone
2 Raramente o mai interessato ad interagire/ impegnarsi(relazionarsi con altre persone	2 Raramente o mai interessato ad interagire / relazionarsi con altre persone

**3) Quando cadeva o si faceva male, che cosa faceva? Teneva a stare fermo e aspettare che qualcuno arrivasse o veniva verso l'adulto a mostrare che si era fatto male? E' mai capitato che andasse da persone che non conosceva bene per cercare conforto? Si è mai rivolto verso una persona non familiare per essere consolato, nonostante fosse disponibile qualcuno a lui/lei familiare?**

(E' cambiato qualcosa tra il momento del suo arrivo in famiglia e la fine del primo anno con voi?)

Punteggio:

Al momento del suo arrivo	Un anno dopo il suo arrivo
0 Segnala una netta preferenza per un adulto quando si tratta di cercare conforto	0 Segnala una netta preferenza per un adulto quando si tratta di cercare conforto
1 Mostra a volte o sporadicamente una preferenza per un adulto quando si tratta di cercare conforto	1 Mostra a volte o sporadicamente una preferenza per un adulto quando si tratta di cercare conforto
2 Mostra raramente o in maniera poco marcata una preferenza per un adulto quando si tratta di cercare conforto, cioè:	2 Mostra raramente o in maniera poco marcata una preferenza per un adulto quando si tratta di cercare conforto, cioè:
a) fallisce in modo consistente nella ricerca di conforto	a) fallisce in modo consistente nella ricerca di conforto
b) ricerca il conforto di chiunque sia disponibile	b) ricerca il conforto di chiunque sia disponibile
c) cerca più facilmente conforto presso una persona non familiare che presso una familiare	c) cerca più facilmente conforto presso una persona non familiare che presso una familiare

**4) Quando si rivolgeva a lei, o all'adulto che preferiva, per cercare conforto (o quando eravate voi a cercare di consolarlo), lo accettava o resisteva ai vostri sforzi? Era difficile da consolare?**

(E' cambiato qualcosa tra il momento del suo arrivo in famiglia e la fine del primo anno con voi?)

Punteggio:

Al momento del suo arrivo	Un anno dopo il suo arrivo
0 Risponde chiaramente al conforto offerto da una persona familiare quando si è fatto male, quando è spaventato o afflitto	0 Risponde chiaramente al conforto offerto da una persona familiare quando si è fatto male, quando è spaventato o afflitto
1 Risponde a volte o sporadicamente al conforto offerto da una persona familiare quando si è fatto male, quando è spaventato o afflitto	1 Risponde a volte o sporadicamente al conforto offerto da una persona familiare quando si è fatto male, quando è spaventato o afflitto
2 Risponde raramente o in maniera poco marcata al conforto offerto da una persona familiare quando si è fatto male, quando è spaventato o afflitto	2 Risponde raramente o in maniera poco marcata al conforto offerto da una persona familiare quando si è fatto male, quando è spaventato o afflitto

**5) Condivideva con lei l'interesse per qualcosa, parlandone o indicando? Oppure era piuttosto il tipo che si tiene tutto per sé? La comunicazione era reciproca? Nelle conversazioni, rispettava i turni?**

(E' cambiato qualcosa tra il momento del suo arrivo in famiglia e la fine del primo anno con voi?)

Punteggio:

Al momento del suo arrivo

Un anno dopo il suo arrivo

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0 Risponde chiaramente con reciprocità negli scambi con gli adulti familiari

0 Risponde chiaramente con reciprocità negli scambi con gli adulti familiari

1 Mostra a volte o sporadicamente della reciprocità negli scambi con gli adulti familiari

1 Mostra a volte o sporadicamente della reciprocità negli scambi con gli adulti familiari

2 Mostra raramente o in maniera poco marcata della reciprocità negli scambi con gli adulti familiari

2 Mostra raramente o in maniera poco marcata della reciprocità negli scambi con gli adulti familiari

**6) Com'era il suo umore? Era generalmente abbastanza contento, di buon umore, o era piuttosto irritabile, triste, serio? Direbbe che era così la maggior parte del tempo o solamente di tanto in tanto? Potrebbe dirmi approssimativamente per quanto tempo era irritabile, triste, serio?**

(E' cambiato qualcosa tra il momento del suo arrivo in famiglia e la fine del primo anno con voi?)

Punteggio:

Al suo arrivo

Un anno dopo il suo arrivo

0 Regola bene le sue emozioni, con affetti positivi e livelli di irritabilità, paura, tristezza compatibili con la sua età

0 Regola bene le sue emozioni, con affetti positivi e livelli di irritabilità, paura, tristezza compatibili con la sua età

1 Mostra a volte o sporadicamente delle difficoltà a gestire le sue emozioni, con una minore presenza di quelle positive e, tenendo conto della sua età, si mostra relativamente irritabile, pauroso e/o triste

1 Mostra a volte o sporadicamente delle difficoltà a gestire le sue emozioni, con una minore presenza di quelle positive e, tenendo conto della sua età, si mostra relativamente irritabile, pauroso e/o triste

2 Mostra raramente o in maniera poco marcata di saper gestire le sue emozioni; mostra poche emozioni positive ed appare nettamente irritabile, pauroso e/o triste

2 Mostra raramente o in maniera poco marcata di saper gestire le sue emozioni; mostra poche emozioni positive ed appare nettamente irritabile, pauroso e/o triste

**7) Quando era in un luogo non familiare, cosa faceva? Controllava che voi genitori foste presenti? O piuttosto era il tipo che se ne andava senza curarsi della vostra presenza? Tendeva a muoversi senza una meta precisa? Se si trovava separato da voi, si mostrava turbato o ciò non sembrava preoccuparlo affatto?**

(E' cambiato qualcosa tra il momento del suo arrivo in famiglia e la fine del primo anno con voi?)

Punteggi:

Al suo arrivo	Un anno dopo il suo arrivo
0 Verifica chiaramente la presenza dell'adulto mentre esplora, in particolare nei luoghi non familiari	0 Verifica chiaramente la presenza dell'adulto mentre esplora, in particolare nei luoghi non familiari
1 A volte o sporadicamente verifica la presenza dell'adulto mentre esplora, in particolare nei luoghi non familiari	1 A volte o sporadicamente verifica la presenza dell'adulto mentre esplora, in particolare nei luoghi non familiari
2 Verifica raramente o in maniera poco marcata la presenza dell'adulto mentre esplora, in particolare nei luoghi non familiari	2 Verifica raramente o in maniera poco marcata la presenza dell'adulto mentre esplora, in particolare nei luoghi non familiari

**8a) Come si comportava con gli adulti che non conosceva? Aveva la tendenza ad essere amichevole o piuttosto si tirava indietro e osservava prima di avvicinarsi? Aveva la tendenza a essere piuttosto timido con gli sconosciuti o ad approcciarli direttamente? (Se sì, lei ha un'idea del perchè facesse così?) In queste circostanze piangeva e si aggrappava a lei o le sembrava solo guardingo? Era così tutto il tempo o solo a volte? I suoi comportamenti erano incostanti (a volte amichevole, altre volte piangeva)? O era amichevole verso certi adulti non familiari e non verso altri? Mi potrebbe fornire un esempio preciso di una volta in cui ha incontrato un adulto che non conosceva?**

**Se è timido, lo è di più all'inizio per poi aprirsi un pò quando prende confidenza o rimane timido tutto il tempo? La sua timidezza è rimasta la stessa da quando lo ha conosciuto o le sembra cambiata?**

(E' cambiato qualcosa tra il momento del suo arrivo in famiglia e la fine del primo anno con voi?)

Punteggio:

Al suo arrivo	Un anno dopo il suo arrivo
0 Mostra chiaramente della reticenza nei confronti degli adulti non familiari	0 Mostra chiaramente della reticenza nei confronti degli adulti non familiari
1 A volte o sporadicamente mostra chiaramente della reticenza nei confronti degli adulti non familiari	1 A volte o sporadicamente mostra chiaramente della reticenza nei confronti degli adulti non familiari
2 Mostra raramente o in maniera poco marcata della reticenza nei confronti degli adulti non familiari	2 Mostra raramente o in maniera poco marcata della reticenza nei confronti degli adulti non familiari

**8b) Gli è mai capitato di avvicinare gli adulti non familiari in modo aggressivo o intrusivo? Per esempio dandogli delle botte, tirando loro gli occhiali, la cravatta o manifestando altri comportamenti invadenti?**

(E' cambiato qualcosa tra il momento del suo arrivo in famiglia e la fine del primo anno con voi?)

Punteggio:

Al suo arrivo	Un anno dopo il suo arrivo
0 Non approccia mai (o lo fa raramente) gli adulti non familiari in un modo aggressivo o intrusivo	0 Non approccia mai (o lo fa raramente) gli adulti non familiari in un modo aggressivo o intrusivo
1 A volte o sporadicamente approccia gli adulti non familiari in un modo aggressivo o intrusivo	1 A volte o sporadicamente approccia gli adulti non familiari in un modo aggressivo o intrusivo
2 Approccia chiaramente gli adulti non familiari in un modo aggressivo o intrusivo	2 Approccia chiaramente gli adulti non familiari in un modo aggressivo o intrusivo



**8c) Ha mai assunto un atteggiamento insolitamente familiare, anche se non aggressivo, con degli adulti non familiari (come salire sulle ginocchia o avvicinarsi per essere preso in braccio)?**

(E' cambiato qualcosa tra il momento del suo arrivo in famiglia e la fine del primo anno con voi?)

Punteggio:

Al suo arrivo	Un anno dopo il suo arrivo
0 Non assume mai (o lo fa raramente) un atteggiamento insolitamente familiare (non aggressivo) con degli adulti sconosciuti	0 Non assume mai (o lo fa raramente) un atteggiamento insolitamente familiare (non aggressivo) con degli adulti sconosciuti
1 Assume a volte o sporadicamente un atteggiamento insolitamente familiare (non aggressivo) con degli adulti sconosciuti	1 Assume a volte o sporadicamente un atteggiamento insolitamente familiare (non aggressivo) con degli adulti sconosciuti
2 Assume chiaramente un atteggiamento insolitamente familiare (non aggressivo) con degli adulti sconosciuti	2 Assume chiaramente un atteggiamento insolitamente familiare (non aggressivo) con degli adulti sconosciuti

**9) Ha mai pensato che avrebbe potuto facilmente andarsene con uno sconosciuto? Cosa gliel'ha fatto pensare? Potrebbe fornirmi un esempio preciso? Pensa che avrebbe potuto farlo sempre o solo a volte?**

**Questo modo di interagire con gli estranei è poi cambiato in seguito? L'avrebbe fatto solo quando era più piccolo?**

Punteggio:

Al suo arrivo	Un anno dopo il suo arrivo
0      Chiaramente non disposto ad andarsene con una persona relativamente sconosciuta	0      Chiaramente non disposto ad andarsene con una persona relativamente sconosciuta
1      A volte o sporadicamente disposto ad andarsene con una persona relativamente sconosciuta	1      A volte o sporadicamente disposto ad andarsene con una persona relativamente sconosciuta
2      Disposto ad andarsene con una persona relativamente sconosciuta	2      Disposto ad andarsene con una persona relativamente sconosciuta

**10) Era un bambino che si metteva in situazioni rischiose? Potrebbe fornirmi un esempio preciso? (come ad esempio correre nel traffico, lanciare una pentola in cucina?) Le sembra che cercasse di provocarla con i suoi comportamenti pericolosi? Lo faceva con tutti o solo con una persona specifica? Perché pensa che facesse così?**

(E' cambiato qualcosa tra il momento del suo arrivo in famiglia e la fine del primo anno con voi?)

Punteggio:

Al suo arrivo	Un anno dopo il suo arrivo
0 Chiaramente non mette in atto condotte pericolose in presenza di una persona specifica	0 Chiaramente non mette in atto condotte pericolose in presenza di una persona specifica
1 A volte o sporadicamente mette in atto condotte pericolose particolarmente in presenza di una persona specifica	1 A volte o sporadicamente mette in atto condotte pericolose particolarmente in presenza di una persona specifica
2 Mette in atto chiaramente condotte pericolose, particolarmente in presenza di una persona specifica,	2 Mette in atto chiaramente condotte pericolose, particolarmente in presenza di una persona specifica

**11) Aveva la tendenza ad aggrapparsi a lei o a restarle attaccato? Quando succedeva ciò? Succedeva in presenza di un adulto sconosciuto? Anche in altri momenti? Potrebbe fornirmi un esempio preciso?**

(E' cambiato qualcosa tra il momento del suo arrivo in famiglia e la fine del primo anno con voi?)

Punteggio:

Al suo arrivo

Un anno dopo il suo arrivo

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0 Chiaramente non si aggrappa in modo eccessivo ad un adulto specifico in luoghi sconosciuti o in presenza di persone non familiari

0 Chiaramente non si aggrappa in modo eccessivo ad un adulto specifico in luoghi sconosciuti o in presenza di persone non familiari

1 A volte o sporadicamente si aggrappa in modo eccessivo ad un adulto particolare in luoghi sconosciuti o in presenza di persone non familiari

1 A volte o sporadicamente si aggrappa in modo eccessivo ad un adulto particolare in luoghi sconosciuti o in presenza di persone non familiari

2 Si aggrappa chiaramente in modo eccessivo ad un adulto particolare in luoghi sconosciuti o in presenza di persone non familiari

2 Si aggrappa chiaramente in modo eccessivo ad un adulto particolare in luoghi sconosciuti o in presenza di persone non familiari

**12) Aveva la tendenza ad osservare lei o altri adulti intensamente, come se lo facesse per scoprire di che umore eravate? Capitava che sembrasse più o meno spaventato da un adulto, oppure che facesse esattamente quello che gli veniva richiesto, in modo quasi automatico?**

(E' cambiato qualcosa tra il momento del suo arrivo in famiglia e la fine del primo anno con voi?)

Punteggio:

Al suo arrivo	Un anno dopo il suo arrivo
0 Non manifesta chiaramente alcun atteggiamento che evochi la paura, l'inibizione o l'ipervigilanza, con nessun adulto	0 Non manifesta chiaramente alcun atteggiamento che evoca la paura, l'inibizione o l'ipervigilanza, con nessun adulto
1 Manifesta a volte o sporadicamente un atteggiamento che evoca la paura, l'inibizione o l'ipervigilanza, con un adulto specifico	1 Manifesta a volte o sporadicamente un atteggiamento che evoca la paura, l'inibizione o l'ipervigilanza, con un adulto specifico
2 Manifesta chiaramente un atteggiamento che evoca la paura, l'inibizione o l'ipervigilanza con un adulto specifico	2 Manifesta chiaramente un atteggiamento che evoca la paura, l'inibizione o l'ipervigilanza con un adulto specifico

**13) Sembrava comprendere quando lei o altri adulti eravate tristi, arrabbiati o turbati? Cosa faceva? Potrebbe fornirmi un esempio preciso? Le è mai sembrato preoccupato o inquieto per lei (o per altri adulti)? Potrebbe fornirmi un esempio preciso? Le è mai sembrato in ansia per come stava lei (o altri adulti)? Perchè pensa che facesse così? Ha mai pensato che la sua preoccupazione fosse eccessiva per un bambino della sua età?**

(E' cambiato qualcosa tra il momento del suo arrivo in famiglia e la fine del primo anno con voi?)

Punteggio:

Al suo arrivo	Un anno dopo il suo arrivo
0 Non mostra chiaramente uno stato di attenzione inadeguato, evocante una preoccupazione eccessiva rispetto al benessere emotivo dell'adulto	0 Non mostra chiaramente uno stato di attenzione inadeguato, evocante una preoccupazione eccessiva rispetto al benessere emotivo dell'adulto
1 A volte o sporadicamente manifesta uno stato di attenzione evocante una preoccupazione eccessiva rispetto al benessere emotivo dell'adulto	1 A volte o sporadicamente manifesta uno stato di attenzione evocante una preoccupazione eccessiva rispetto al benessere emotivo dell'adulto
2 Manifesta chiaramente uno stato di attenzione evocante una preoccupazione eccessiva rispetto al benessere emotivo dell'adulto	2 Manifesta chiaramente uno stato di attenzione evocante una preoccupazione eccessiva rispetto al benessere emotivo dell'adulto

*Caro/a ragazzo/a,  
come avrai saputo ci piacerebbe che tu partecipassi ad una ricerca  
che stiamo conducendo all'Università di Torino. Per aiutarti a  
decidere se partecipare o no, ti abbiamo scritto qualche  
informazione sul nostro progetto. Eccole!*

### **Perché facciamo questa ricerca?**

Questa ricerca vuole capire come stanno (in famiglia, con gli amici e a scuola) quei ragazzi che da piccoli sono stati adottati in un Paese straniero. Per fare questo confronteremo due gruppi di ragazzi della stessa età (11-16 anni): i primi sono nati in un Paese straniero, gli altri in Italia.

Con la tua partecipazione potremo capire più cose sull'adozione, e quindi fare in modo che le persone che lavorano in questo campo, così come i futuri genitori adottivi, siano meglio informati.

### **Chi può rispondere?**

Per partecipare, tu devi essere un ragazzo o ragazza che ha tra gli 11 e i 16 anni.

### **Richiederà molto tempo?**

Se decidi di partecipare alla ricerca incontrerai uno dei nostri collaboratori all'Università di Torino. Durante questo incontro, che dura circa due ore, avrai modo di parlare della relazione fra te, i tuoi genitori e i tuoi amici; inoltre dovrai rispondere ad un questionario che riguarda il tuo comportamento con gli altri. Questa intervista sarà filmata così potremo ricordarci bene cos'hai detto. Il video potrà essere visto solo da alcune persone fidate, che lavorano con noi, e in ogni caso verrà distrutto subito dopo averlo trascritto.

### **Potrò essere riconosciuto o rintracciato in base alle mie risposte?**

No, non potrai in alcun modo essere riconosciuto. Faremo infatti molta attenzione a proteggere la tua privacy, rispettando la legge italiana. Per fare in modo che le cose che dirai restino anonime, cioè senza il tuo nome, ti daremo un codice segreto. Soltanto il ricercatore responsabile del progetto potrà associare questo codice al tuo nome. Tutti i dati raccolti con i vari

ragazzi che parteciperanno allo studio saranno conservati dal responsabile della ricerca per 5 anni dalla fine del progetto.

### **Cosa ci guadagno?**

Se deciderai di partecipare a questo progetto potrai riflettere sulla tua esperienza e sul rapporto che hai con i tuoi genitori. Inoltre permetterai a tutti di avere informazioni più precise e aggiornate sullo sviluppo dei ragazzi come te, adottati e non. Al termine di questo progetto tu e i tuoi genitori riceverete un riassunto di questi risultati, ottenuti grazie al tuo aiuto.

### **Sono obbligato a rispondere?**

Anche se deciderai di partecipare al progetto, sarai comunque sempre libero di rispondere oppure di non farlo. Potrai interrompere il colloquio in ogni momento e per qualsiasi motivo, basterà dirlo all'intervistatore che sarà con te.

### **Ci possono essere delle conseguenze negative?**

Se deciderai di partecipare dovrai trovare il tempo di partecipare all'intervista: per venirti incontro cercheremo di scegliere un momento in cui sei più libero.

Partecipando a questo studio non corri nessun rischio. È possibile, però, che alcune domande ti facciano venire alla mente ricordi poco piacevoli, magari riguardo al tuo rapporto con gli altri. Se dovesse capitare una cosa simile sarai libero di non rispondere e se ti dovessi sentire in difficoltà, puoi comunicarlo all'intervistatore che potrà aiutarti. Se proprio sarà necessario, potremo anche contattare lo psicologo della scuola, o un altro adulto di cui hai fiducia.

### **Potrò venire a conoscenza di ciò che pensano gli altri ragazzi?**

Come ti abbiamo detto, se sei interessato quando il progetto sarà terminato potrai ricevere un riassunto dei risultati ottenuti grazie anche alla tua collaborazione.

### **Hai altre domande?**

Se hai delle domande sul progetto (o se ti dovessero venire in futuro), se vuoi comunicarci qualunque tipo di cambiamento che ti riguarda o se non desideri più partecipare, puoi contattare la dott.ssa Marta Casonato ai seguenti recapiti: [marta.casonato@unito.it](mailto:marta.casonato@unito.it), tel. 011-670 2872.

*Grazie per la tua attenzione!*





UNIVERSITÀ DEGLI STUDI DI TORINO  
DIPARTIMENTO DI PSICOLOGIA  
VIA VERDI, 10 - 10124 TORINO

## **Progetto di ricerca: Adolescenti adottati: uno studio comparativo**

Gentili Genitori,

con la presente comunicazione richiediamo la vostra partecipazione ad uno studio internazionale sugli adolescenti adottati.

Qui di seguito troverete alcune informazioni utili a chiarire gli obiettivi dello studio e le modalità di partecipazione. Vi saremmo molto grati se poteste leggerle attentamente.

La vostra collaborazione è davvero preziosa per permetterci di realizzare questa ricerca e vi ringraziamo anticipatamente per l'attenzione!

### **La ricerca**

Questo studio ha lo scopo di valutare l'adattamento sociale e scolastico dei ragazzi adottati con adozione internazionale e di comparare il loro sviluppo con quello degli adolescenti nati in Italia e che vivono nello stesso ambiente. Più precisamente, l'obiettivo principale è quello di valutare la qualità della relazione di attaccamento e l'adattamento sociale di questi ragazzi di età compresa fra gli 11 e i 16 anni.

La ricerca, rivolta sia alle famiglie adottive sia a quelle non adottive, richiede la vostra partecipazione (in qualità di genitori) e quella di vostro figlio/a. Siete ovviamente liberi di accettare o di rifiutare.

### **Da chi è condotta**

Questa ricerca è condotta su base internazionale in 12 differenti Paesi nel mondo. In Italia viene svolta dall'Università di Torino (responsabile professoressa Paola Molina) in collaborazione con l'Università di Trento (responsabile professoressa Barbara Ongari).

È stata inoltre sottoposta all'approvazione del Comitato di Bioetica dell'Università di Torino.

### **Cosa ci attendiamo**

Fornendo il vostro consenso alla partecipazione a questo progetto vi verrà richiesta la disponibilità ad un'intervista di circa due ore presso la sede dell'Università di Torino. Voi genitori e vostro figlio, che adesso ha tra gli 11 e i 16 anni, sarete intervistati separatamente. L'intervista è verbale, non clinica, ben consolidata e permetterà a ciascuno di voi di esprimere in maniera del tutto confidenziale le vostre reazioni nelle situazioni di vita quotidiana (riguardanti la vita sociale e la relazione genitore/figlio). Dovrete inoltre completare alcuni brevi questionari.



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### **Quando dovrà aver luogo l'intervista?**

L'intervista si svolgerà presso l'Università nella primavera del 2012. Il momento sarà concordato con voi, compatibilmente con le vostre necessità e quelle di vostro figlio.

### **Rimborso e compenso**

Non è prevista alcuna forma di compenso per la partecipazione a questo studio. Al termine della ricerca vi faremo avere, se siete interessati, un riassunto dei principali risultati ottenuti.

### **Siete interessati?**

Se accettate di partecipare a questo studio dovete compilare il modulo di consenso sottostante o contattare direttamente la dott.ssa Marta Casonato, referente della ricerca, ai seguenti recapiti: [marta.casonato@unito.it](mailto:marta.casonato@unito.it), tel. 011-670 2872.

Verrete prontamente ricontattati per verificare la vostra possibile partecipazione e fissare un appuntamento.

Potete partecipare alla ricerca se:

- a. vostro figlio ha tra gli 11 e i 16 anni*
- b. parlate italiano*
- c. valutate di essere in buona salute sia fisica che mentale*

solo per le famiglie adottive:

- d. se vostro figlio è stato adottato con adozione internazionale entro i 5 anni di età*

Vi ringraziamo per la vostra preziosa collaborazione.

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Prof. Paola Molina  
Responsabile del progetto  
Tel. 011 670 29 84  
[paola.molina@unito.it](mailto:paola.molina@unito.it)

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Dott.ssa Marta Casonato  
Referente della ricerca  
Tel. 011 670 2872  
[marta.casonato@unito.it](mailto:marta.casonato@unito.it)



## **Foglio informativo e formulario per il consenso dei genitori**

Prima di accettare di partecipare al progetto di ricerca, vi preghiamo di leggere attentamente e di darvi il tempo di comprendere le informazioni che seguono. Questo documento vi spiega lo scopo del progetto, le procedure, i vantaggi e i rischi o gli inconvenienti implicati nella partecipazione. Vi invitiamo a rivolgere qualunque domanda che riteniate utile alla persona che vi consegnerà questo documento. Potete prendervi tutto il tempo che desiderate prima di decidere, e consultare qualunque persona di vostra scelta. La partecipazione a questo studio è interamente volontaria e, se decidete di non partecipare, la vostra decisione non vi potrà nuocere in nessun modo.

### **Informazioni generali**

Questa ricerca, intitolata “Adolescenti adottati: uno studio comparativo”, è coordinata dalla prof. Paola Molina, docente di psicologia dello sviluppo e dell'educazione all'Università degli Studi di Torino e dalla prof. Barbara Ongari, docente di psicologia dello sviluppo e psicologia clinica dello sviluppo all'Università degli Studi di Trento.

E' realizzata grazie al sostegno del Master dei Talenti, promosso dalle Fondazioni CRT e Gorla, con la collaborazione del Centro Clinico Aquilone di Alba (CN). Il sostegno è fornito sotto forma di un assegno di ricerca rivolto alla dott.ssa Marta Casonato, sotto la supervisione della prof.ssa Paola Molina e della dott.ssa Alessandra Borgogno.

### **In cosa consiste lo studio**

La ricerca ha lo scopo di valutare l'adattamento sociale e scolastico degli adolescenti adottati con adozione internazionale e di comparare il loro sviluppo con quello degli adolescenti nati in Italia e che vivono nello stesso ambiente. Più precisamente, l'obiettivo principale è quello di valutare la qualità della relazione di attaccamento e l'adattamento sociale di questi ragazzi di età compresa fra gli 11 e i 16 anni.

### **Come si partecipa**

Una volta dato il vostro consenso, partecipare al progetto richiederà il vostro impegno per un'intervista di circa due ore presso l'Università di Torino. Entrambi voi genitori e vostro/a figlio/a, che ha adesso tra gli 11 e i 16 anni, dovrete rispondere verbalmente, nel corso di un'intervista che si svolgerà separatamente, a domande riguardanti la vita sociale e la relazione genitore/figlio. Dovrete inoltre completare alcuni questionari sul comportamento sociale e il disagio psicologico. Le interviste saranno videoregistrate con il solo fine della codifica del contenuto verbale e i video saranno in seguito distrutti. Si tratta di interviste non cliniche e ben consolidate, che permetteranno a ciascuno di voi di esprimere le proprie reazioni nei confronti degli avvenimenti della vita quotidiana. Gli incontri si terranno nella primavera-estate del 2012; saranno concordati con voi in un momento opportuno sia per voi che per vostro/a figlio/a.

### **Possibili rischi o inconvenienti legati alla vostra partecipazione**

Il progetto di ricerca non comporta alcun rischio. La nostra équipe di professionisti assicura il vostro benessere durante tutto il percorso. Tuttavia la vostra partecipazione allo studio potrebbe comportare gli inconvenienti che vi segnaliamo qui di seguito:

- prendere coscienza di difficoltà già presenti in sé o nella relazione con il genitore/ il figlio/a;
- dover trovare nella propria giornata il tempo di raggiungere il luogo dell'intervista e di parteciparvi (circa due ore). Per venire incontro alle esigenze di ciascuna famiglia, le interviste potranno aver luogo anche nel tardo pomeriggio dei giorni feriali o, in casi particolari, durante le giornate del fine settimana.

### **Eventuali vantaggi**

La partecipazione al progetto di ricerca permetterà ai partecipanti di riflettere sulla loro situazione personale e sulle loro dinamiche relazionali genitore-figlio/a. I partecipanti contribuiranno all'avanzamento delle

conoscenze sull'adattamento sociale e sullo sviluppo socio-emotivo degli adolescenti sia adottati che non adottati. Alla fine dello studio, gli interessati riceveranno un riassunto dei principali risultati della ricerca.

### **Compensi**

Non è prevista alcuna forma di compenso per la partecipazione a questo studio.

### **Privacy, confidenzialità e gestione dei dati**

Durante la vostra partecipazione a questo progetto di ricerca, i ricercatori responsabili del progetto e tutta l'équipe raccoglieranno e conserveranno in un dossier di ricerca le informazioni che vi riguardano. Saranno raccolte esclusivamente le informazioni necessarie al funzionamento del progetto di ricerca.

Tutte le informazioni raccolte rimarranno strettamente confidenziali nei limiti previsti dall'art 13 del D.lgs. 196 del 30 giugno 2003. Per salvaguardare la vostra identità e la confidenzialità delle informazioni, sarete identificati con un numero di codice: la chiave del codice che collega il vostro nome al dossier di ricerca relativo sarà conservata dal ricercatore responsabile del progetto di ricerca, l'unico che potrà avervi accesso.

I dossier saranno conservati per cinque anni dopo la fine della ricerca presso il Dipartimento di Psicologia dell'Università degli studi di Torino. I dati del progetto di ricerca potranno essere pubblicati nelle riviste scientifiche o condivisi con altri ricercatori durante convegni o discussioni scientifiche. Nessuna pubblicazione o comunicazione scientifica conterrà informazioni che possano permettere di identificarvi.

In ogni momento avrete il diritto di consultare il vostro dossier di ricerca per verificare l'esattezza delle informazioni raccolte, di rettificare o sopprimere informazioni ormai superate o non giustificate, e di fare copie del vostro dossier per tutto il tempo in cui verranno conservate queste informazioni. Tuttavia, per garantire la scientificità del progetto, alcune di queste informazioni potranno essere accessibili solo a progetto concluso.

### **Partecipazione volontaria e diritto a ritirarsi dallo studio**

La partecipazione a questo progetto di ricerca è del tutto volontaria: siete quindi liberi di accettare o di rifiutare di parteciparvi, senza che ciò comporti alcun pregiudizio nei vostri confronti. Vi sarà comunicata qualunque nuova conoscenza acquisita durante lo svolgimento del progetto che potrebbe influenzare la vostra decisione di partecipare. Inoltre sarete liberi di ritirarvi dal progetto, o da una parte del progetto, in qualunque momento, semplicemente comunicandolo verbalmente, senza dover giustificare in alcun modo i motivi della vostra decisione. In tal caso non ne deriverà alcun pregiudizio nei vostri confronti. Allo stesso modo, potrete chiedere in qualunque momento che le informazioni personali che vi riguardano siano distrutte, senza dover esplicitare i motivi della vostra decisione e senza alcun pregiudizio per voi.

### **Eventuali domande e persone di riferimento**

Se desiderate informazioni più ampie riguardo a questo progetto, oppure se nel corso del progetto avete domande specifiche, se volete comunicarci qualunque cambiamento che vi riguarda (per esempio, un cambiamento di indirizzo), o se volete avvisarci del vostro ritiro, potrete contattare la dott.ssa Marta Casonato ai seguenti recapiti: [marta.casonato@unito.it](mailto:marta.casonato@unito.it), tel. 011-670 2872.

### **Ringraziamenti**

La vostra collaborazione è preziosa per permetterci di realizzare questo studio e vi ringraziamo per la vostra partecipazione!

**Il progetto di ricerca, questo foglio informativo e il formulario di consenso sono stati approvati dal Comitato di Bioetica dell'Università di Torino in data 16/05/2011.**

## Consenso alla partecipazione (per i genitori)

Firmando questo formulario dichiaro :

- che mi sono state date tutte le informazioni sullo studio;
- che tutte le mie domande hanno ricevuto risposta;
- che mi sono stati spiegati i rischi, gli inconvenienti, e possibili vantaggi di questo studio;
- che comprendo di poter scegliere di non partecipare e di ritirarmi in qualunque momento;
- che posso rifiutare di partecipare senza essere oggetto di pregiudizio;
- che ho il diritto di non rispondere a qualunque domanda specifica;
- che sono libero di porre domande sullo studio sia ora che in futuro;
- che sono stato informato riguardo alla confidenzialità delle mie informazioni personali;
- che capisco che non sarà utilizzata alcuna informazione che permetta di identificarmi senza il mio consenso;
- che ho avuto tempo sufficiente per decidere di partecipare o di non partecipare allo studio;
- che ho ricevuto una copia firmata del presente formulario di consenso;
- che acconsento ad essere contattato in futuro dall'equipe di ricerca, per propormi di partecipare ad altri progetti di ricerca collegati, per i quali io sarò libero di dare o non dare il mio consenso alla partecipazione:  
si\_\_\_\_\_ no\_\_\_\_\_
- che desidero ricevere, per posta o per mail, un breve riassunto dei risultati della ricerca:  
si\_\_\_\_\_ no\_\_\_\_\_

Con la presente io sottoscritto (nome e cognome) \_\_\_\_\_ accconsento a partecipare.

\_\_\_\_\_  
Firma del partecipante

\_\_\_\_\_  
Data

\_\_\_\_\_  
Firma del ricercatore o del suo rappresentante

\_\_\_\_\_  
Data

**Questo formulario sarà inserito nel dossier di ricerca.  
Codice identificativo:**

Un breve **riassunto dei risultati della ricerca** sarà spedito ai partecipanti che lo richiederanno indicando l'indirizzo e-mail o postale presso il quale desiderano ricevere il documento. I risultati non saranno disponibili prima della fine del 2011. Se il vostro indirizzo dovesse cambiare prima di questa data vi preghiamo di informare i responsabili della ricerca del nuovo indirizzo a cui desiderate ricevere questo documento.

Desideriamo ricevere il breve riassunto dei risultati della ricerca al seguente indirizzo e-mail:

\_\_\_\_\_  
@\_\_\_\_\_

O, diversamente, al seguente indirizzo:

Via \_\_\_\_\_ N° \_\_\_\_\_,

CAP \_\_\_\_\_ Città \_\_\_\_\_