Chapter 1 Theoretical bases

In this chapter we will briefly address the main theoretical questions underlying the use of drawing as a tool to access children's ideas about social relationships (see Pinto and Bombi, 2007 for a more detailed account).

We will start by defining what we mean by interpersonal relationships, and by explaining why it is important to study the representation of these relationships, besides the actual behavior between the participants. For such a study, verbal methods are insufficient; drawings can be considered a valuable way to complement them, and can be used in a cultural perspective as well. We will compare our approach to drawings of relationships with some classical pictorial tests, underscoring important differences that justify the need of a new instrument, such as PAIR. Finally we will list the types of relationships that PAIR is capable of assessing.

1.1. Why assess the representation of interpersonal relationships

Children's relationships with adults (parents, Ambert, 1997; grandparents, Brussoni and Boon, 1998; teachers, Hamre and Pianta, 2006) as well as with other children (siblings, Kramer and Bank, 2005; friends, Berndt, 2004; peers in general, Bukowski, 2003) are essential for their psychological well-being and development (Brody, 2004; Hartup and Stevens, 1999).

Relationships can be defined as psychological entities that require at least two participants and a series of interactions over an extended period of time (Hinde, 1979). However, repeated interactions are not sufficient to identify a relationship: some relationships exist even if they are not supported by interpersonal exchanges, and vice versa, some relationships do not exist even if there are daily interactions; in a relationship, current interactions are affected by previous ones and may affect those following

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(Berscheid and Reiss, 1998). The continuity between discrete interactions is guaranteed by the way in which the partners perceive and memorise them. In fact, the influence of previous interactions on successive ones depends not only on what really happened, but also on the representations the partners have of those interactions. On this basis, Hinde argues that "some of the most important characteristics of interpersonal relationships lie in the affective and cognitive components" (Hinde, 1997, p. 40).

The emphasis on the representation and on the cognitive/affective aspects of a relationship leads us to consider not only what goes on *between* two individuals but also what goes on *within* each individual. In short, to fully understand relational phenomena, it is important to know how relationships are represented.

1.2. Changes in children's representation of relationships

Developmental research on children's representations of relationships, mostly conducted in revised versions of the Piagetian paradigm (such as Youniss, 1980; Selman, 1980; Yeates and Selman, 1989) shows that children's ideas undergo marked qualitative changes from early childhood to adolescence. As they grow older, children seem to progress from a limited and self-centered social perspective to a broader appreciation of personal and societal factors (Kennedy and Itkonen, 2006; Lang, Reschke and Neyer, 2006), a progression that reflects the course of cognitive development (Keating and Clarke, 1980) and, more precisely, the children's increasing ability to create detailed and flexible mental models of social experiences (O'Mahoney, 1989).

This developmental pattern, repeatedly found in studies based on verbal tools such as oral or written narratives, interviews and questionnaires (Crutcher, 1994), doesn't fit empirical evidence from observational studies. Children exhibit competent social behavior well before they are able to describe and explain their actions: for instance, they can take into account their partners' personal characteristics and they can regulate their behavior according to the relationship's implicit rules (Dunn, 1993; Rotenberg and Sliz, 1988). For this reason, the adequacy of verbal measures, especially with young children, has been questioned (Furman, 1996): children may not be able to describe accurately the core features of their relationships, simply because of their limited lexical, syntactic and pragmatic resources (Gallagher, 1993). The risk here is to interpret developmental changes in children's language as changes in social knowledge. In other words, the poor models of interpersonal relationships expressed by younger children could be partly a function of their linguistic limitations.

Nevertheless, observation is not sufficient to discover all the relevant aspects of children's representation of relationships. In fact, very important aspects of close relationships, such as self-disclosure, are usually invisible to outside observers (Foster, Bell-Dolan and Berler, 1986); verbal communication seems the only direct way to access other people's thoughts and feelings. Based on these considerations, it seemed useful to offer children an alternative means of communication, to complement the classical verbal and observational tools.

1.3. Drawing as an alternative to verbal methods

Drawing is an ecological task, familiar to and enjoyed by most children, a task which sets very little restrictions on children's freedom of expression. Drawing seemed the most obvious candidate to capture children's ideas about social relationships because it requires different representational abilities from verbal language, and yet it is sufficiently conventional to be used as a means of communication.

The process of drawing can be conceived as "a search for equivalents" (Goodnow, 1977) of the object to be depicted; a successful search will make the representation recognisable to an outside viewer. This "search for equivalents" develops quite early: around two or three years of age children no longer limit themselves to scribbling, but try to use their rudimentary denotation abilities (Willats, 1985) to create simplified human figures (the so called *tadpoles*, formed only by head, some facial features and limbs). By five years of age these figures will have already evolved into conventional figures (Cox, 2005) in which head, trunk and limbs are depicted by separate regions; very soon, details of the face, hands and feet will be added. From five years on, children will continue to be interested in the representational power of drawing, trying to make figures more and more recognisable (phase of "intellectual realism" according to Luquet, 1927; prevalence of "object centered perspective" according to Freeman and Cox, 1985). They will subsequently begin to introduce in their drawings information about the perspective from which the objects are represented ("visual realism", according to Luquet, 1927; prevalence of "viewer centered perspective" according to Freeman and Cox, 1985). In this way, children become able to adapt successively the image in order to represent what they know about an object and to increase the information included in the drawing. We can observe, then, that during middle childhood children are not only able to draw recognisable objects but also to vary their drawings in a personal way (van Sommers, 1984).

1.4. Drawing in cross-cultural perspective

Drawing has been traditionally used as a culture-free tool to assess the child's cognitive development (Goodenough, 1926). Underpinning this "universalistic" approach is the notion of a relatively invariant succession of stages or phases in the drawing development, reflecting cognitive development and roughly similar for each child (Kellogg, 1969; Luquet, 1927).

Some authors (e.g. Vygotskij, 1978; Van Meter and Garner, 2005) reject this view, claiming that drawing is the product of culturally and socially transmitted conventions, and that children learn to draw mainly imitating models provided by adults or peers. Taking into account these contrasting opinions, we wondered if the differences in the way children from various cultures draw themselves and their social partners are of such a nature as to prevent us from applying PAIR in other countries.

For many aspects of development, including drawing, "it is reasonable to assume that there is an interaction between children's intrapersonal development and the influence of the culture in which they are brought up" (Cox, 2005: p. 238). Cox's accurately updated review of studies of Western and non-Western populations does not support a view of graphic development as a rigid succession of stages; nor does it support the opposite conception of drawing consisting merely of arbitrary signs. With the spread of Western culture, increasingly fewer societies have been immune from the influence of Western images, which have replaced or modified to some extent the pre-existing local forms (Cox, 2005). Reviewing the literature about drawing of the human figure, we also found that the developmental shift from the simple schemes used by younger children to the more complex structures of the older children seems to be universal. With rare exceptions, only the styles of drawing the human figure vary from culture to culture. Hence, local graphic conventions don't prevent children from producing a recognizable human figure, one that is composed of – minimally – a head (with facial features), trunk, arms and legs. Stylistic preferences can appear in the shapes or in the dimensions of these basic elements, and in other details added to the figures.

Cultural variability can be conceived as "a limited set of variations on a common underlying structure, indicating that the same rules can generate alternative models that are representationally equivalent" (Golomb, 1992: p. 333). Within such a framework, PAIR has been planned precisely to capture the structural features of the represented human figures, leaving aside the stylistic differences the children may introduce, lead either by idiosyncratic preferences or by cultural influences.

1.5. How to use drawings to access children's representations of social relationships

The use of children's drawings of fundamental relationships, in particular the family (Corman, 1967; Tambelli, Zavattini and Mossi, 1995), has a long tradition in psychology. This tradition is based on the psychodynamic approach of Freudian derivation, and posits that the child, thanks to the defence mechanism of projection, unconsciously borrows – while drawing – symbolic forms which will be then "readable" by an external viewer (Klein, 1932); more recently a similar interpretation of drawing has been made by attachment theorists (Kaiser, 1996; Fury, Carlson and Sroufe, 1997).

This symbolic approach to children's drawings, even though widely used in the clinical practice (where it retains some value), has not received solid empirical support (see Thomas and Silk, 1990, for a review). PAIR radically departs from this approach, proposing the use of drawing as a means of communication, which does not need to assume the existence of unconscious defence mechanisms. PAIR assumes only that the child knows something about the social world and can express this pictorially. It is not necessary for the subject to be explicitly aware either of an understanding of interpersonal relationships or of the effort to find an appropriate means for the graphic representation of such understanding. It is sufficient to assume the existence of a tacit understanding (Grieve, 1990) or of a "primary explicit knowledge" (as described by Karmiloff-Smith, 1986) about both the object which is to be drawn and its graphic representation.

To ensure the validity of drawing as a means of communication, it is important to keep in mind that the way in which children draw is highly contextual (Pinto and Bombi, 1999): they may scribble when they are annoyed, invent very creative forms when they are drawing for themselves, or adhere to canonical, "safer" representations when they know that their work will be judged. For this reason the way of collecting drawings for PAIR differs radically from the way suggested by projective tests: in those instruments, the task is intentionally ambiguous, while the researcher using PAIR will tell the child as clearly as possible what he/she should draw (see Chapter 3).

In the next chapter, we will describe how we came to identify the six aspects of children's drawings that can be measured with PAIR: they pertain to those relevant features of social relationships that are represented by children with sufficient frequency and clarity, and therefore can be accurately scored.

1.6. Fields of application of PAIR

PAIR is a research instrument that can be reliably applied to children from 6 to 14 years old; its use can also be extended to preschoolers with sufficient drawing ability. Its present version is the result of years of research and practice, which had its first milestone in a book where an initial version of the six scales was used mainly to study friendship, and to a limited degree siblinghood (Bombi and Pinto, 1993). Subsequently, the scoring system was improved, and applied to a larger selection of interpersonal relationships in a second comprehensive book (Bombi and Pinto, 2000). Besides the research summarized in these books, we have published a variety of studies, national and cross-cultural, in journals and collections of essays; all together, they show that PAIR can be used to detect how children understand interpersonal relationships in general, how they discriminate between different categories of relationships and how they represent variations within the same relationship.

Tables 1.1 and 1.2 present overviews of the types of relationships studied nationally and cross-culturally, while Table 1.3 includes the studies of children's self-image; the references for all these studies are listed at the end of the chapter.

General features of relationships	Special circumstances
ONE RELATIONSHIP	Conflict
Subject and friend	Subject and friend
Bombi & Cannoni, 2000	Bombi & Cannoni, 1990
Bombi & Pinto, 1991; 1993; 1998a	Bombi & Pinto, 1993; 1998a (chapter VIII)
(chapters VI and VII); 1994; 1998b	
Bombi, Cannoni & Pinto, 2003	HARMONY VS. CONFLICT
Subject and an ideal friend	Subject and sibling
Bombi & Pinto, 1993; 1998a (chapter VIII)	Bombi, Cannoni & Di Prospero, 2000
	de Bernart & Pinto, 2005
Subject and teacher	Lecce, Pinto & Primi, 2002
Bombi & Scittarelli, 1998	
	Subject and twin
Peer group (subject and two friends) Bombi, Pinto & Palmisano, 1996	Lecce & Pinto, 2004a; 2004b; 2004c
	Subject and teacher
Peer group (subject, a friend and a non-friend)	Pinto & Di Prospero, 2000
Bombi, Pinto & Palmisano, 1996	Subject and both parents
	Bombi & Cannoni, 2007
Two relationships compared	_
	PARTNERS WITH CONTRASTING QUALITIES IN
Subject and friend vs. subject and non-friend	TWO RELATIONSHIPS
Bombi & Pinto, 1993; 1998a (chapters V	Generic child and bad father vs.
and IX)	generic child and good father /
	generic child and bad mother vs.
Subject and friend vs. subject and	generic child and good mother
sibling	Bombi, Cannoni & Di Prospero, 2000
Bombi, Pinto & Palladino, 1991	
Bombi & Pinto, 1993; 1998a (chapter IX)	PARTNERS REPRESENTED WHILE DOING
Bombi, Cannoni & Di Norcia, 2003	SOMETHING
Cannoni, 2002	
Lecce & Pinto, 2005	Subject and both parents
Lecce, Pagnin & Pinto, 2005	Bombi & Cannoni, 2001
Lecce, Pinto & Pagnin, 2003	Bombi & Modena, 2003
	Modena, 2001
Subject and friend vs. subject and	
imaginary friend	
Cannoni & Padrin, 2002	

Tab. 1.1 – Studies of relationships

Subject and father vs. subject and mother	PARTNERS OF TWO RELATIONSHIPS REPRESENTED WHILE DOING SOMETHING
Bombi, Bruni & Saraceni, 1996	
Generic child and friend vs. generic child and boy/girlfriend Bombi & Cannoni, 2000	Subject and father vs. subject and mother Bombi, Cannoni & Di Prospero, 2000
THREE RELATIONSHIP S COMPARED	Subject and grandfather vs. subject and grandmother Cannoni & Mocini, 2007
Subject and teacher vs. subject and father vs. subject and mother Pinto & Di Prospero, 2000	

Tab. 1.2. – Studies of relationships (non close)

Children's relationships	Comparison of social categories
R ELATIONSHIPS WITH PARTNERS SHOWING	A rich person and a poor person
CONTRASTING EMOTIONS OR QUALITIES	Bombi, 1995; 1996; 2002;
Subject with a sad peer vs. subject with a happy peer Pinto & Pistacchi, 2000	Bombi & Cannoni, 1995 Bombi & Morelli, 1988
Subject with a sincere peer vs. subject with an insincere peer Pinto, Mazzoni & Failli, 1996	
Subject with a trustful person vs. subject with a non trustful person Pinto & Safina, 2000	
Subject with a frightening vs. subject with a protective person Cannoni, 2001	
Subject with an Italian peer vs. subject with a stranger peer Pinto & Safina, 2000	
Subject with a familiar adult vs. subject with a non familiar adult Pinto & Safina, 2000	

Cultures	Type of relationship
Lebanon, Bolivia and Italy	Subject and friend Pinto & Bombi, 1997; Pinto, Bombi & Cordioli, 1997
Brazil: favela and middle class	Subject and friend in harmony and in conflict Pinto, 2002
Bolivia, Brazil and Camerun	Subject and friend vs. subject and sibling Pinto, 2006
Bolivia: urban and pre-technological	Subject and friend vs. subject and sibling de Bernart, 2006
Bolivia: urban and pre-technological	Family Pinto & Crispin-Arcienega, 2001
Brazil: favela and middle class	Generic child with a bad father vs. generic child with a good father / generic child with bad mother vs. generic child with good mother Pinto, 2002

Tab.1.3 - Cultural studies of children's close relationships

Tab. 1.4 - Studies of self-image

Self at different ages	Self in different conditions
Subject in the past vs. subject in the present vs. subject in the future Bombi & Di Prospero, 1992 Bombi, Di Prospero & Vignale, 1997 Di Prospero & Bombi, 1998	Subject when healthy vs. subject when sick Cannoni & Bombi, submitted
Subject 6 years old vs. subject 13 years old vs. subject 18 years old Bombi, Cannoni & Scittarelli, 2002	