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Effects of Early Mother-Twin Relationships from Birth to Age 3, on Twin Bonding

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Abstract. Findings from an earlier phase of this research project clearly pointed to the mother's psychological adaptation inherent to the specificities of triadic interaction. Mothers' attitudes were classified in a typology ranging from "early twinning" where the two babies are treated as though they were a single unit, to attempts to create two dyadic relationships. The current program deals with the effects of the type of parent-child relationship at one year on the emergence of twin bonding. Sixty-eight families of twins (26MZ, 24DZ same sex, 18DZ different sex) are followed up from birth to the age of 3 using a method based on clinical interviews, videotaped observations, and questionnaires. The data cover mothers' rearing attitudes towards organization of babycare and outward signs of twinning, maternal representations of the relationship between the twins and observation of the children's interaction in a standardized game situation. The findings are discussed in terms of zygosity, and parental SCS.

Key words: Mother-twin relationships, Twin bonding, Family interactions, Early childhood

INTRODUCTION

This paper presents the psychological research program of the French Research Unit on Twins and Multiple Birth. The program began ten years ago under the guidance of Professor Papiernik at the Clamart Maternity Hospital in France. Originally we dealt with early mother-twin relationships while the current program focuses on the effects of this special mother-infant tie on psychological development. In particular we looked at the emergence of the sibling bond between twins.

The Mother-Twin Relationship

The birth of two babies at the same time is a type of motherhood which has not been sufficiently explored. Recently, however, surveys conducted in a variety of countries commissioned by associations of multiple birth parents have emphasized the psychosocial stress these families must cope with. For a research psychologist, these births raise the issue of the simultaneous establishment of a double mother-child bonding. Various research models which have developed theories to account for the emergence of mother-infant bonding have always considered this bonding in terms of a dyadic relationship.

When we started our research on the mother-twin relationship, we expected to study two parallel dyadic relationships. However, pilot study showed that, in fact, there was always a triadic situation, including the reactions of the mother and those of both twins [17]. We then conducted a series of studies employing a variety of methods to explore the different (physical, social, educational, psychological) features which entered into this triadic situation. These studies revealed the complexity, specificity, and paradoxical nature of the mother-twin relationship. A survey at the twins second month of life in 200 families provided indications on the types of problems these families must cope with eg. financial, health of the twins, fatigue of the mother, psychological and emotional problems [18]. These findings are consistent with data reported elsewhere [4,6,7]. These studies clearly point to the impact of the overload of childcare, and particularly the effect it has, in terms of time spent in care in the first months of life, on the mother's experience of motherhood. On a daily basis, mothers of twins are particularly overtaxed at mealtimes; one solution is to feed the babies simultaneously. Fifteen percent of mothers do this systematically as early as two months after birth.

A longitudinal clinical study on eight families from birth of the twins to the age of three shows how hard it is for the mothers to establish individualized relationships with each twin [17]. We particularly studied the triadic situation at mealtimes, but it has also been reported in other types of interaction eg. mother-twin play [2], and linguistic exchanges [20]. We observed an excessive egalitarian behavior on the part of the mother in wanting to make sure that neither twin received "special treatment" to the detriment of the other. Some mothers develop authentic "egalitarian" strategies which govern the way the day is organized, in particular at mealtimes. Other researchers reported on the preferential attachment of mothers, particularly Minde et al [12-15] who investigated a recruitment of seriously ill prematures, and also Hay and O'Brien [8]. These studies showed the ways in which postnatal medical complications may lead to preference of the mother for one of the twins. However, in our sample of only slightly premature and healthy twins, preference of this type was rare. When preference did appear, it was in cases of mixed-gender twins where parental identification was the primary determinant.

The wish to "do the same thing" with both infants is contradicted by the educational wish to differentiate the children as much as possible, in particular when they are MZ. However, the need to differentiate the twins is a highly ambivalent process. Two studies show the concomitant presence of this process linked to a wish to merge the twins into a single unit: *a*) survey on first names in 300 pairs of same sexed and opposite sexed twins as compared to first names of pairs of siblings. The findings showed that in 21% of the cases (vs 8% of the singletons), parents of twins give names which are reminders of the fact that the children are twins [9].

b) a survey on the educational practices of 68 mothers of one year old twins, which investigated mothers' attitudes and behavior in regard to "outward signs of twinning", ie. the employment of everything to remind, reinforce or, on the contrary, cancel out twinning for others. This included choice of clothing, furniture, baby care equipment, toys, first names [19,21,22]. The data from home observation and mothers interviewed led to classification of the mothers into "differentiating", "twinning" and "intermediary" types.

The *differentiating* mothers consider differentiation to be an educational principle which they put into practice, in contrast to the *twinning* mothers. The *intermediary* mothers are the most ambivalent. They have, at the same time, an attraction for twinning and a wish for differentiation. This can result in contradiction between stated principles and observed practices. These findings are correlated with the mother's level of education eg. the more highly educated mothers are more differentiating. However, this result only concerns the data from interviews (mothers' attitudes) and not the data from observations (mothers' behavior). In contrast, the type of zygosity is correlated with behavior but not with attitudes. For example, mothers of monozygotic twins tend to be more *twinning*, while mothers of different sex twins tend to be more *differentiating*.

The existence of this attraction for twinning prompted us to formulate the following hypothesis: given perhaps the difficulty of establishing a clearly individualized relationship with each twin, some mothers may find compensatory self-gratification in the fact of having given birth to two infants, which manifests itself in their need to exhibit the infants' twinning to others.

THE LONGITUDINAL RESEARCH PROGRAM

Aims of the study

This series of studies led to the development of a model of maternal adjustment to the triadic situation. This typology is organized around two poles. At one extreme, the mother tries to establish two separate dyadic relationships. This is difficult to accomplish, except where a second adult, generally the father, plays the role of the "mother's double" and transforms the triadic relationship into a quadratic one. This can also take place when the infants are sufficiently different to generate specific maternal behavior, as is the case of different sex pairs. In our study, at the age of two months of the infants, we found that one third of the fathers had taken on this role of "mother's double" systematically as regards childcare. Lytton et al [10,11] also reported on this type of specific division of emotional involvement between adults and children in families of twins. In his study, as in the case of singleton births, the mother is the prime attachment figure, but in one quarter of the cases, one of the twins is more attached to the father than to the mother. In one out of six families, there is a clear distinction between "father's twin and mother's twin".

At the other extreme, there is the "early twinning pole" where the mother apparently gives up developing an individualized relationship with each twin. The lesser involvement of some mothers of twins, in terms of both education and affectivity has been pointed out by other researchers [5,11]. Both infants receive baby care simultaneously and are encouraged to be autonomous. This form of motherhood restricts the amount

of body contact between mother and infant and facilitates the relationship between the twins. Our assumption is that given the difficulty of establishing a relationship with each infant, some mothers try to create a mother-infant dyadic with the twin pair as a unit.

Our current research focuses on further elaboration of this model. First of all, we looked at the role of each type of zygosity on maternal behavior. Our working hypothesis was that the more the twins resembled each other (case of MZ) the more problems the mother would have in treating them as separate individuals. For each type of zygosity, we examined how the mother articulated the contradiction between the need for individualization in infant care and the attraction for twinning as a compensatory gratification for herself. Secondly, we developed a new series of hypotheses as regards the development of sibling bonds in twin pairs. We examined the presence of a link between maternal attitudes (along the typology above) and the structure of the relationship between the twins.

This research followed on from the work of R. Zazzo [23-25] who was the first author to have studied the twin bond modelled on couple relationships.

DISCUSSION

MATERIAL AND METHODS

The study dealt with the recruitment of 68 families of twins, ie. a total of 136 children at the ages of 1 year, 2 years, and 3 years using a technique which combines clinical interviews and taped observations in their homes.

Three groups of twins who differed in zygosity types were set up (26 MZ pairs, 24 same-sex DZ pairs and 18 DZ opposite-sex pairs). Zygosity was established on the basis of obstetrical records (examination of the placental membrane) and on the basis of the questionnaire developed by Cohen et al [3]. Two levels of socioeconomic backgrounds were defined on the basis of the mothers' level of education. Twins were included in the sample on the basis of the following criteria: not severely premature at birth, and exempt from medical complications which could have led to their separation from the mother. Mothers were excluded from the study if they had serious social problems, a history of mental illness, or if they were multiparous.

1) In the case of the one year old twins, the method as described elsewhere [21] consisted in a semi directive interview with the mothers including a list of standardized items to measure their rearing attitudes and maternal representation of the relationship between the twins. Three scales were constructed to analyze the interview data:

- a scale to assess the degree of individualization of baby care routines in a variety of situations, such as feeding, sleep-wakeful periods for each child, (the children's play spaces), and also the recourse to outside help (father, family, mother's helpers).
- a twin differentiation scale to measure the degree of attraction for the twinning situation through expressly outward signs of twinning.
- a scale of the maternal representation of the relationship between the twins characterizing the nature of the twin relationship on six dimensions (rivalry, dominance, aggressivity, sharing, affection, seeking out of each other).

It also included a video observation of the twins' behavior during the brief absence of the mother. Following a three minute observation time to record the reactions of the twins, a single new toy was placed in the setting for ten minutes, with the purpose of stimulating social interaction between the twins. We selected a game situation with a toy as a means of studying interactions because it is known that objects are the main triggers for social interaction at this age [16]. The Ainsworth stranger paradigm [1], based on the attachment theory, predicts that the absence of the mother produces a situation of "minimal stress" which may in twins produce infant distress. However, we suspect that some children compensate for the mother's departure by relating to the other twin. Reactions such as these have also been described by Clark and Dickman [2].

2) The data analysis for the twins at 2 years followed the same procedure as for the 1 year olds. However, we focused more specifically on the relationship between the twins based on an interview dealing with:

- the mothers' representations of the relationship between the children and the educational practices these representations elicited.
- the observation of the interaction between the twins in a standardized game situation (introduction of a new toy designed to prompt both cooperation and competition).
- a test of language mastery.

3) The follow-up at the age of 3 made use of the following two standardized instruments:

- the French version of a questionnaire, developed by Hay and O'Brien [6], which was designed to assess the twin relationship through the mothers' representations.
- a taped play situation designed to measure interactions and spontaneous language use.

In assessing language ability at the age of 2 and 3 years through two indices (syntax and lexicon) we hoped to confirm Zazzo's hypothesis that there is an association between type of zygosity and specificities in language acquisition.

This longitudinal study approached the twin relationship by means of two complementary techniques (direct observation and mothers' representations). It should help shed light on the ways in which sibling bonds develop between twins in the first year of life, taking into account the role of early relationships experienced by these children, in particular, through what we have termed the mother-twin "triadic relationship".

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