Some researchers have stressed the negative effects of the peculiar interactive situation of twins on the development of communicative competence; other researchers have shown early positive effects. Referential communication—one of the most evolved, intellectualized, and decentered functions of language that consists of transmitting information about referents such as objects, locations, and ideas—is particularly critical for the twin condition, where the problem of differentiation and decentralization with respect to the partner is always present. To analyze this kind of communicative performance, 16 twins (four pairs of boys and four pairs of girls) and 16 singletons all aged 5-11, were read a story that the child had to repeat to an interlocutor, were given directions for a game that the child had to explain to another child, and were shown how an object worked that the child had to explain to another child. Results indicated that (1) referential communication abilities of twin children when interacting with each other are as good as those of single born children; (2) when a twin leaves his/her "intrageminal society" to interact with another child, his/her performance becomes less adequate; (3) in the first kind of game the twins' verbal accounts of story are more detailed when interacting with co-twin than with another child; and (4) in the second kind of game, even if there are no significant quantitative differences, twins' verbal explanations to other children are more frequently accompanied by gestural communication. (Two photographs showing the type of materials used in the games and one figure are included.)
"REFERENTIAL COMMUNICATION SKILLS IN TWIN CHILDREN"

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ABSTRACT

One current point of view, advocated by authors such as Zazzo, supports the hypothesis that the interactive situation of twins would generate negative effects on their communicative competence. On the contrary, authors such as Keenan and Savic propound that communication between twins has developed, even precociously with respect to non-twins, in efficient and evolved strategies, such as "the function of completion". Three different referential communication tasks were used. Children were 16 twins and 16 singletons aged from 5.10 to 11.9.

Results indicate that: 1) no significant differences exist between the communicative competence of twin pairs and that of single born children; 2) the performance of twin with co-twin is better than that obtained when twin interacts with single born child.
THE STATE OF ART IN THE STUDY OF COMMUNICATION SKILLS
IN TWIN CHILDREN

Some authors have stressed the negative effects of the peculiar interactive situation of twins on the development of communicative competence. Zazzo (1960; 1984) speaks of "Criptophasia" and "Secret Language" and Luria (1959) of "Autonomous Language", as a way of communicating which is shared and understood only by the twin couple. Linguistic delay is also usually found in twins (e.g., Hay et al. 1986).

On the contrary, other authors have shown early positive effects. Keenan (1974) found a precocious dialogue capacity and Savic' (1977) speaks of the "function of completion" as a typical turn-taking style of twins.
AIM OF THE PRESENT STUDY

We have chosen to study referential communication because this type of communication is one of the most evolved, intellectualized and decentered functions of language, consisting of transmitting information about referents such as objects, locations, and ideas (Asher, 1979). It is a means of sharing knowledge rather than needs and emotions. Therefore referential communication is particularly critical for twin condition, where the problem of differentiation and decentralization with respect to partner is always present.

The following questions may be advanced:

A) Are there really differences between referential communication capacity of twin pairs and pairs of single born children?

B) If communicative capacity of twin pairs is at least as good as non twins', is this capacity limited to twin partners or can it be extended to any other interlocutor?
PROCEDURE

The analysis of communicative performance was carried out in three conditions:

1) When each twin interacted with co-twin.

2) When each twin interacted with another child.

3) When each single born child interacted with another single born.

Comparison between Condition 1 and Condition 3 may reveal possible advantages or disadvantages of twins as compared to non twins, due to the specificity of the "Intrageminal Interactive Situation". Comparison between Conditions 1 and 2 may reveal whether the twin's performance improves or declines outside the "Intrageminal Society".
SUBJECTS

Sixteen Twins (4 pairs of boys and 4 pairs of girls) aged from 5.10 to 11.9 and 16 Singletons aged 5.8 to 11.7. All children were already familiar with each other before the beginning of the study.
EXAMPLE OF THE FIRST KIND OF GAME: "The Badminton Game"

"Vanessa's daddy has given her a new toy: Badminton. Vanessa and her sister Virginia play such an exuberant game that, by the end of it, both are very tired. The game consists of throwing a half-sphere of cork, surrounded by a crown of pidgeon feathers. To throw it, a very light racket is used, with an elongated handle. Today, these objects are usually made of plastic, but do you know that this game is as old as 2000 years? Virginia and Vanessa stand at five meter distance from each other. With a gentle shot of her racket, Vanessa throws the shuttle-cock. Virginia catches it with her racket and throws it back to Vanessa......who misses it! The shuttle-cock falls down. Virginia scores one point. The rule is that, when shuttle-cock falls down, the player who let it fall scores one. Before starting, players agree on the highest score to be reached - for example 10 - and the one who scores it first ....loses the game, that is, who lets the shuttle-cock fall 10 times is out!"

INSTRUCTIONS: Experimenter reads story to child. Child has to repeat it to interlocutor.
INSTRUCTIONS: Experimenter explains the game to child verbally, i.e., by playing it. Child has to explain it verbally to other child.
INSTRUCTIONS: Experimenter shows and explains to child how objects work. Child has to explain it to other child.
RESULTS

Comparison between twin pairs and single-born pairs

- No significant differences were found between communicative performances of twins interacting with each other and those of single born children interacting with each other.

- Significant differences were found in type of game. Mean number of information units transmitted to interlocutor:

  First kind of Game = .56  
  Second Kind of Game = .42  
  Third Kind of Game = .55

  Second kind of game had not been explained verbally, thus its verbal repetition is more difficult.

Comparison between twin/co-twin and twin/other child

- A significant interaction was found between Type of Game and Type of partner. $F (2, 30) = 4.006, P < .02$

  (FIGURE 1)
DISCUSSION

Referential communication abilities of twin children when interacting with each other are as good as those of single born children.

However, when twin leaves his/her "intrageminal society" to interact with another child (even though familiar), his/her performance becomes less adequate. This is supported also by the internal analysis of each kind of game, which revealed that:

- In First Kind of Game, twin's verbal accounts of story are more detailed when interacting with co-twin than with other child, particularly in the descriptive parts of the story.

- In Second Kind of Game, even if there are no significant quantitative differences, twins' verbal explanations to other children are more frequently accompanied by gestural communication (nodding, pointing and object manipulation), even if this had been explicitly prohibited by experimental instructions. Total number of violations: Twin/co-twin = 5; twin/other child = 15; Single-born/single-born = 2.
CONCLUSIONS

With reference to previous literature, no negative effects were found in referential communication capacities of twin children as compared to singletons', even though their capacities seem to be confined, to some extent, to intrageminal condition. Further research is needed to understand how much of this effect is simply due to their long lasting familiarity and how much to their common genetic heritage.