

National
Organization of
Mothers
Of
Twins
Clubs, Inc.

SUBJECT: **HANDEDNESS IN MULTIPLES SURVEY**
RESEARCHER: National Organization of Mothers of Twins Clubs, Inc.
DATE: 1987

PURPOSE: The purpose of this survey was to examine handedness in multiples by twin type as well as handedness in singleton siblings and parents.

METHOD: Parents were surveyed about the handedness of their multiples, siblings and themselves.

BACKGROUND INFORMATION:

I. This survey was divided into five questions:

A. Age--average age of multiples was 5.4 years

B. Zygosity

1. 36% were identical twins
2. 58% were fraternal twins and triplets
3. 6% were unsure

C. Mirror-image Twins

1. 27% of identical were mirror-image twins (according to the mother)
2. 23% of the mirror-image twins were same handed
3. 52% of the mirror-image twins were opposite-handed
4. 25% of the mirror-image twins were unsure

D. Handedness of Multiples and Siblings

1. Multiples

- a. Twin #1 -- 56% were right handed
- b. Twin #2 -- 58% were right handed
- c. Triplets (#1, 2 and 3) -- were right-handed
- d. In 25% of all these groups, mothers were unsure of their multiples' handedness, probably because they were too young
- e. More multiples were right-handed, with only 12% being left-handed

2. Siblings

- a. A high percentage of siblings were right-handed, with only 9.2% being left-handed
- b. A higher percentage of siblings #1 and 2 were left-handed than subsequent siblings
- c. A low percentage checked that they were unsure of the sibling's handedness

- E. Handedness of Parents
 1. A high percentage of mothers and fathers were right-handed
 2. 9% of mothers were left-handed
 3. 13% of fathers were left-handed

II. Comparison of Twin Type and Handedness:

- A. Identical twins had the same hand preference in 55% of the cases
- B. Fraternal twins had the same hand preference in 48% of the cases
- C. Identical triplets had the same hand preference in 29% of the cases
- D. Fraternal triplets had the same hand preference in 67% of the cases
- E. 42% of identical triplets were unsure of handedness

CONCLUSION:

1. Because of the high percentage of mothers who were unsure of their multiples' hand preference, validity of the statistics is less reliable.
2. Multiples tended to have a slightly higher average of being left-handed than siblings or mothers. Fathers tended to have the same percentage of left-handedness as multiples.
3. The majority of multiples were right-handed, over 50%.
4. Identicals have slightly higher rates for being same-handed than fraternal.
5. This was not the same in triplets. Fraternal triplets had a higher percent of being same-handed than identical triplets.
6. 23% of mirror-image twins were same-handed. In past literature mirror-image twins are usually reported as being opposite-handed.
7. Individual families were not traced for handedness and inheritable traits for handedness were not measured.

The accompanying article for the RESEARCH REPORT can be found in the 1990 Fall Issue of *MOTC's Notebook*.