

## TOYS, SOCIOCOGNITIVE TRAITS, AND OCCUPATIONS: ITALIAN CHILDREN'S ENDORSEMENT OF GENDER STEREOTYPES<sup>1</sup>

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*Summary.*-In a sample of 136 Italian children ages 8 to 12 years ( $M=9.6$ ,  $SD=1.2$ ; 68 boys, 68 girls), gender stereotypes related to gender-typed toys, traits, and occupational choices were examined, using the forced-choice technique between a male and a female silhouette. Stereotypy was established considering boys' and the girls' choices for the 70%-100% range. Differences in gender stereotyping toys for age and sex of participants were verified. Analysis indicated children attributed toys prevalently connected with aesthetic aspect and domestic activities to the female silhouette, while technology, warfare, locomotion, and construction toys were attributed to the male. Children attributed physical and verbal aggressiveness and dominance to the male silhouette; the female profile was exclusively characterized by sweetness. The occupational stereotypical male model was structured in both practical-manual activities and of highly cultural and specialist relevance, while for the female model the number of activities, mainly of a domestic type, was reduced. Significant main effect of sex of children was found, but no significant age-related differences in the three domains. Results were discussed within the framework of gender-stereotype theories.

Sex stereotyping plays an important role in children's cognitive and social development and continues to be one of the most consistent areas of research from different perspectives. Gender stereotypes and their use in the understanding of the social world can be observed in the study of toys due to precocity of gender preference in the developmental age. It seems that children, at 18 months of age, choose stereotypical toys according to gender (e.g., Powlishta, Sen, Serbin, Poulin-Dubois, & Eichstedt, 2001; Serbin, Poulin-Dubois, Colburne, Sen, & Eichstedt, 2001) and, by 2 years old, acquire some knowledge of the gender stereotyping of masculine and feminine activities and prefer to play with toys judged to pertain to their own sex rather than with neutral toys or stereotypical toys for the opposite sex (e.g., Martin, Eisenbud, & Rose, 1995; Leinbach, Hort, & Fagot, 1997; Serbin, Poulin-Dubois, & Eichstedt, 2002). Children, between 3 and 6 years old, appear to have better memories for information consistent with gender-type than for information inconsistent with gender-type (Liben & Bigler, 2002) and also for toys and activities labeled or stereotyped for their own, relative to the opposite sex (Cherney & London, 2003; Cherney, 2005).

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Together with toys, the choice of sociocognitive traits was considered a consolidated tool in the study of gender stereotypes even in very young children (Best, Williams, Cloud, Robertson, Edwards, Giles, & Fowles, 1977; Kuhn, Nash, & Bruckner, 1978). Sex-trait stereotypes represented “the constellations of psychological characteristics which are said to characterize men more or less frequently than women” (Williams & Bennett, 1975, p. 1375). As reported by Best, *et al.* (1977), there was a clear progression in development of knowledge of sex-trait stereotypes from age 5 to age 8, and knowledge of male stereotype traits appeared to develop earlier, while knowledge of female traits increased more rapidly between ages 5 and 8.

In a study by Powlishta (1995), 8- to 10-yr.-old children were asked to evaluate a list of 48 traits in terms of either their masculinity versus femininity or their positive versus negative value. As predicted, children’s evaluations displayed high gender-typed attributions and reflected strong biases favouring their own gender.

The knowledge of occupational gender stereotypes seems to be present in children as young as 3 years old and it tends to increase with age (e.g., Martin & Little, 1990); children also continue to aspire to gender-typed jobs (e.g., Etaugh & Liss, 1992; Sellers, Satcher, & Comas, 1999) towards which they have more positive affective reactions (Levy, Sadovsky, & Troseth, 2000). Serbin, Powlishta, and Gulko (1993) examined the development of sex-typing in a sample of children aged 5-12 years, using multiple measures of sex typing, including indices of knowledge of stereotypes and flexibility in the domains of activities, occupations, and traits (cognitive elements) and indices of personal preference, such as sex-typed preferences for activities, occupations, and peers (affective elements). Their results supported the need for an integrative theory of sex-role development, incorporating factors emphasized by cognitive-developmental, schematic-processing, and social learning theories.

Some of the most important perspectives on gender role and gender stereotypes development were considered in debate still open today: the Cognitive-Developmental Model (Kohlberg, 1966), The Social Learning Theory (Mischel, 1966; Bandura, 1986), the Gender Schema Theory (Bem, 1981; Martin & Halverson, 1981; Martin, 1993; Martin, Ruble, & Szkrybalo, 2002) and The Social Cognitive Theory of Gender Development (Bussey & Bandura, 1999).

The Cognitive-Developmental Model (Kohlberg, 1966; Kohlberg & Ullian, 1974) provided the idea that children become aware there are two categories of people, male and female, and become aware into which category they fit before their social experiences could influence them. According to this model, “gender identity” (children’s labeling of the sexes or identification of themselves as boys or girls), “gender stability” (understanding of the invariance of sex over time), and “gender constancy” (understanding their sex will not change even though they might engage in cross-sex activities) have an important mediating role in the

development of children's gender roles and constitute preliminary and causal factors in the acquisition of gender-typed characteristics ("I am a girl and so I behave as a girl", Kohlberg, 1966, p.89).

Social Learning Theory (Mischel, 1966; Bandura, 1986) attributed relevant importance to the environmental determinants of gender development in terms of rewards and models. In fact, children initially acquire gender-typed behaviors as a function of environmental reinforcements and modeling and, next, they realize that there are boys or girls with differential gender traits. For this reason, this theory affirmed that behavior precedes cognition ("I was given a reward for having behaved as a boy, so I must be a boy"). The main focus of this theory was criticized because it was based on a one-way effect of environment on behavior. In fact, the Social Cognitive Theory (Bussey & Bandura, 1999), built on the idea that children's social experiences and vicarious learning influence their behavior, underlined the active role of children in learning. They can attend selectively to particular events or people in the environment, then organize social information, decide when to enact the behavior, and finally monitor the outcomes of that behavior. Children become capable of performing gender role-consistent behavior, even in the absence of explicit rewards.

Another important perspective developed for understanding the use of gender stereotypes has been represented by the Gender Schema Theory (Martin, Wood, & Little, 1990; Ruble & Martin, 1998). This view underlined the concept of "schema" to explain how children actively organize social information into gender-based categories. The gender schema expands to include knowledge of activities and interests, personality and social attributes, and scripts about gender-typed activities. The Gender Schema Theory also helped understand why younger children seem to adhere to gender stereotypes more rigidly than older children, and why, once gender knowledge is well established, the gender-typed beliefs become more relatively flexible (e.g., Lobel, Bar-David, Gruber, Lau, & Bar-Tal, 2000; Trautner, Ruble, Cyphers, Kirsten, Beherendt, & Hartmann, 2005). When children were asked to predict how much the protagonists of a story would like masculine and feminine toys, as reported in Trautner, *et al.*'s study (2005), the younger children relied only on the sex of the protagonist to make their judgments. In fact, they predicted that, for example, a boy would like to play with trucks regardless of the information given about that boy's interests. By contrast, the older children took into consideration both the sex of the protagonist and the general information about that protagonist given in the story. According to the authors, "this flexibility seemed to be the result of changes in children's cognition, such as an increased understanding of masculinity as distinct from maleness and femininity as distinct from femaleness" (Trautner, *et al.*, 2005, p. 365).

In particular, according to the schematic processing model of sex typing (Martin & Halverson, 1981), the presence of associative networks related to the sexes seems to direct children's behavior toward gender-typed objects and

activities. This model underlined that children use two types of “gender schemas” for processing social information: “in-group-out-group” schema and “own-sex” schema. The first schema consists of all general information children need to categorize traits, toys and activities as being either for boys or for girls, while the second one is a specific version of the first and consists of all the information children have about traits, objects, and activities that characterize their own sex. As described by Martin and Halverson (1981), when an object is shown to a young girl, she will take into consideration several decisions based on her sex-typing schemata that will influence whether or how she will interact with the object. For example, when we show a doll, she will decide first that dolls are self-relevant; secondly, that dolls are “for girls” and “I am a girl”; and finally, that “dolls are for me”. In contrast, when we show a train to the same girl, she will decide first that trains are schema relevant, that is, trains are “for boys” and “I am a girl”, so, she will elaborate that “trains are not for me”.

A new integrated model, with respect to the schematic processing model of sex-typing, was focused on “gender-stereotype components” (Martin, Wood, & Little, 1990; Martin, 1993). In fact, gender stereotypes were viewed as hierarchical structures which, in a vertical way, established the elementary links between gender labels and gender-typed attributes in each of the content domains (role behaviors, occupations, traits, and appearance) and, in a horizontal way, elaborated the associations between links within and between the content domains. Martin, *et al.* (1990) explored developmental changes in gender stereotypes in a sample of children aged 6 to 10 years. Children were told about target children with a masculine or feminine characteristic (appearance, traits of personality, occupations, toys), and then they predicted the likelihood of targets having other masculine and feminine characteristics from the same and from different categories as the cues. In this study, at 6 years of age, children appeared to elaborate links among characteristics relevant and typical to their own sex and, at 8 and 10 years of age, they acquired the network by constructing the associative links for the opposite sex.

In the light of the last perspectives, it seems reasonable that, by using choice of toys, traits and occupations, it is possible to observe the gender stereotypes produced by children.

The present study explored children’s endorsement of gender stereotypes regarding toys, sociocognitive traits, and occupations in a sample of Italian children attending primary and junior high school. The rationale for testing 8- to 12-yr.-old children was that consolidation of gender schemata in this age range should support the clear use of gender stereotypes (that is, to attribute to boys what is considered typically masculine and to attribute to girls what is considered typically feminine). It was predicted (Hypothesis 1) that all children, without any differences for age group, showed high gender stereotyping in the three observed

domains. Also, it was predicted (Hypothesis 2) that there were significant differences between boys' and girls' choices in gender stereotyping.

## METHOD

### *Sample*

One hundred and thirty-six pupils from 8 to 12 years of age were recruited from all state primary and junior high schools in middle-class neighborhoods in Enna, a city in the Sicilian hinterland (Italy). The sample was divided into four age groups of 8 yr., 0 mo. to 8 yr., 11 mo. ( $M=8.0$ ,  $SD<.1$ ; 17 boys, 17 girls); 9 yr., 0 mo. to 9 yr., 11 mo. ( $M=9.1$ ,  $SD<.03$ ; 16 boys, 16 girls); 10 yr., 0 mo. to 10 yr., 11 mo. ( $M=10.1$ ,  $SD<.1$ ; 15 boys, 15 girls); and 11 yr., 0 mo. to 12 yr., 0 mo. ( $M=11.2$ ,  $SD=.4$ ; 20 boys, 20 girls). Each pupil participated individually at school. In addition, parental consent was obtained prior to each child's participation.

### *Materials*

For the exploration of Italian children's endorsement of gender stereotypes, three methods were based on tasks employed previously (e.g., Carter & Patterson, 1982; Weinraub, Clements, Sockloff, Ethridge, Gracely, & Myers, 1984; Signorella & Liben, 1985; Serbin & Sprakfin, 1986; Orlofsky & O'Heron, 1987; Martin & Little, 1990; Boldizar, 1991; Lobel, *et al.*, 2000; Cherney & London, 2003): the Gender Toys Choice, the Gender Traits Choice, and the Gender Jobs Choice. These tasks comprised 101 colored cards (size: 10 cm x 6 cm) on which were printed pictures of 32 toys, labels of 36 adjectives, and the pictures with a short description identifying 33 occupations.

For the Gender Toys Choice, 32 colored picture cards of toys were chosen among those indicated by participants in prior studies as gender-typed (masculine and feminine toys). These toy picture cards included, for masculine toys, airplane, kite, truck, play station, car, tools, football, gun, robot, soldiers, drum, and train; and, for feminine toys, pram, pots, ring/necklace, hair-dryer, sewing machine, iron, brush/mirror, make-up set, tea set, and doll. The following toys were included to study their gender-typed representation: construction blocks, milk bottle, bicycle, puzzle, chess, toy boat, colored pencils, teddy bear, rocking horse, and skates.

The Gender Traits Choice utilized 36 cards with labels reproducing positive and negative sociocognitive adjectives, describing masculine or feminine traits. Each card represented the following adjectives or phrases chosen from previous studies: for masculine traits, athletic, cruel, aggressive, strong, commands others, self-confident, brave, uses bad language; and for feminine traits, shy, kind, romantic, talkative, creative, sensitive, submissive, sweet, defends the weaker, whiner, generous. The following traits were also included calm, liar, steals other

people's things, egalitarian, amusing, intelligent, bad mannered, poor, honest, conceited, nervous, keeps promises, clever, hungry, ignorant, lonely, busybody.

The Gender Jobs Choice utilized 33 colored cards with short descriptions and pictures of objects identifying some activities considered previously to be masculine or feminine. Among the masculine activities were going to the moon (astronaut), driving a truck (truck driver), curing sick people (doctor), repairing water pipes (plumber), repairing broken-down cars (mechanic), building houses (mason), cleaning the streets (sweeper), working in a factory (laborer), piloting an airplane (pilot), arresting thieves (policeman), putting out fires (fireman), delivering the mail (postman), and directing the traffic (traffic warden). The feminine activities included taking care of children (baby-sitter), dancing on the stage (ballet dancer), being paid to clean people's houses (maid), making and selling sweets (confectioner), cutting and sewing dresses (dressmaker), serving in restaurants (waitress), teaching at school (teacher), and making appointments (secretary). Several new activities were also included to study their gender-typed orientation in childhood: acting at the theatre (actor), singing songs (singer), treating teeth (dentist), selling flowers (florist), writing in newspapers (journalist), judging suspects (judge), begging (beggar), painting pictures (painter), making laws (politician), directing films (film director), slicing ham and cheese (grocer), and making discoveries (scientist).

### *Procedure*

The 101 colored cards were shown in random order to each pupil individually during school time. Researchers asked pupils to assign a male or female silhouette to each toy, trait, and occupation. For the Gender Toys Choice, children were asked to choose, between the two silhouettes, who would be more likely to be act in a given way (for instance, "who is more likely to play with the doll?"). For the Gender Traits Choice, children were asked to choose who would be more likely to have a given trait (for instance, "who is more likely to be the romantic one?"); and for the Gender Jobs Choice, children were asked to indicate who would be more likely to perform a given job (for instance, "who is more likely to put out a fire?"). With this specific instruction about the choice of occupations, the children were not asked explicitly, e.g., "who is the fireman or the ballet dancer?", because this question would have inevitably influenced and altered the answers, directing them towards the male silhouette in the former case or the female silhouette in the latter.

Besides the formulation of the relative questions about the choice of occupations, special attention was paid to the figures in each set of cards, specifying the most suitable images to identify both toys and occupations. The labels used for traits and occupations were translated into child-friendly language. The answers given by the subjects were recorded by the researchers on a data sheet.

A measure of gender stereotypy for each toy, trait and occupation attributed to one of the two silhouettes (“stereotype threshold”) was used. The gender stereotypy was defined in a range between 70% and 100%, as the literature showed agreement on the minimum stereotypy value of a gender attribution (Koblinsky, Cruse, & Sugawara, 1978; Liben & Signorella, 1980; Poulin-Dubois, Serbin, Eichstedt, Sen, & Beissel, 2002). In this way, for example, the make-up set was considered a stereotypically feminine toy, if for both the boys and the girls a percentage over 70% attributed it to the female silhouette.

The examination of the statistical data significance was carried out using the SPSS, Version 11.5 software (Statistical Package for Social Science). In the first step, the number of participants (expressed in percentage value) who attributed each toy, trait, and job to the male or female silhouette was calculated. In the second step, once the stereotype threshold of stimuli was individuated, the mean gender stereotypy reached by each pupil was established by dividing the total number of gender-typed toys, traits, and occupations into the sum of only gender-typed choices of participants.

## RESULTS

### *Tasks*

The descriptive analysis was carried out by grouping the results according to the tasks, Gender Toys Choice, Gender Traits Choice, and Gender Jobs Choice.

*Gender Toys Choice.*-The analysis of frequencies obtained for every toy has shown that the sample carried out numerous gender-typed attributions, shared by boys and girls for a value higher than 70% (see Table 1 for percentage of children). Most toys were viewed by participants in particularly stereotyped ways. Children chose 14 toys for the female silhouette mainly connected to an aesthetic aspect and indoor domestic activities. The aesthetic aspect included make-up set, ring/necklace, hair-dryer, and brush/mirror. Domestic activities consisted of sewing machine, tea set, milk bottle, pots, doll, pram, colored pencils, teddy bear, iron, and rocking horse.

For the male silhouette, 14 toys were chosen, mainly of a strategic or technologic type, warfare, locomotion, and construction. The strategic or technologic type included play station, robot, and chess; the warfare type, gun, and soldiers; the locomotion type, truck, football, car, airplane, train, toy boat, and drum; and in the building area, tools and construction blocks.

Some toys apparently had no stereotypical gender connotation in the sense that they were attributed by the sample in a more balanced way to both male and female silhouettes and in percentages below 70%: puzzle (male=41.9% vs female=58.1%), kite (male=46.3% vs female=53.7%), skates (male=55.9% vs female=44.1%), and bicycle (male=61.8% vs female=38.2%).

TABLE 1  
GENDER TOYS CHOICE: ATTRIBUTION OF TOYS BY SILHOUETTES ( $N = 136$ )

| Choice of toy       | Male Silhouette |      | Female Silhouette |      |
|---------------------|-----------------|------|-------------------|------|
|                     | <i>n</i>        | %    | <i>n</i>          | %    |
| Airplane            | 123             | 90.4 | 13                | 9.6  |
| Ring/necklace       | 7               | 5.1  | 129               | 94.9 |
| Hair dryer          | 15              | 11   | 121               | 89   |
| Doll                | 2               | 1.5  | 134               | 98.5 |
| Toy boat            | 112             | 82.4 | 24                | 17.6 |
| Milk bottle         | 3               | 2.2  | 133               | 97.8 |
| Truck               | 127             | 93.4 | 9                 | 6.6  |
| Pram                | 8               | 5.9  | 128               | 94.1 |
| Construction blocks | 98              | 72.1 | 38                | 27.9 |
| Rocking horse       | 38              | 27.9 | 98                | 72.1 |
| Iron                | 24              | 17.6 | 112               | 82.4 |
| Sewing machine      | 5               | 3.7  | 131               | 96.3 |
| Car                 | 124             | 91.2 | 12                | 8.8  |
| Tools               | 131             | 96.3 | 5                 | 3.7  |
| Colored pencils     | 21              | 15.4 | 115               | 84.6 |
| Teddy bear          | 21              | 15.4 | 115               | 84.6 |
| Football            | 128             | 94.1 | 8                 | 5.9  |
| Pots                | 3               | 2.2  | 133               | 97.8 |
| Gun                 | 134             | 98.5 | 2                 | 1.5  |
| Play Station        | 127             | 93.4 | 9                 | 6.6  |
| Robot               | 125             | 91.9 | 11                | 8.1  |
| Chess               | 118             | 86.8 | 18                | 13.2 |
| Tea set             | 4               | 2.9  | 132               | 97.1 |
| Soldiers            | 111             | 81.6 | 25                | 18.4 |
| Brush/mirror        | 8               | 5.9  | 128               | 94.1 |
| Drum                | 111             | 81.6 | 25                | 18.4 |
| Train               | 118             | 86.8 | 18                | 13.2 |
| Make up set         | 5               | 3.7  | 131               | 96.3 |

*Gender Traits Choice.*-Fewer than one-third of the 36 sociocognitive traits exceeded the “stereotype threshold” (70%). Only one trait, sweet, was attributed to the female silhouette, while 10 traits were stereotypically attributed to the male silhouette (see Table 2): strong, uses bad language, brave, aggressive, bad mannered, clever, nervous, poor, liar, and lonely. The participants attributed several traits to the two silhouettes in a rather balanced way: talkative (male=58.1% vs female=41.9%), intelligent (male=41.2% vs female=58.8%), submissive (male=55.9% vs female=44.1%), whiner (male=58.1% vs female=41.9%), busybody (male=59.6% vs female=40.4%), honest (male=54.4% vs female=45.6%), calm (male=56.6% vs female=43.4%), amusing (male=54.4% vs female=45.6%), sensitive (male=47.8% vs female=52.2%), and shy

(male=47.1% vs female=52.9%). The remaining traits did not have a stereotypical gender connotation because they did not approach the “stereotype threshold”.

TABLE 2  
GENDER TRAITS CHOICE: ATTRIBUTIONS OF TRAITS BY SILHOUETTES (N = 136)

| Choice of sociocognitive trait | Male Silhouette |      | Female Silhouette |      |
|--------------------------------|-----------------|------|-------------------|------|
|                                | <i>n</i>        | %    | <i>n</i>          | %    |
| Clever                         | 111             | 81.6 | 25                | 18.4 |
| Lonely                         | 99              | 72.8 | 37                | 27.2 |
| Brave                          | 117             | 86   | 19                | 11   |
| Uses bad language              | 119             | 87.5 | 17                | 12.5 |
| Nervous                        | 110             | 80.9 | 26                | 19.1 |
| Liar                           | 103             | 75.7 | 33                | 24.3 |
| Sweet                          | 29              | 21.3 | 107               | 78.7 |
| Strong                         | 127             | 93.4 | 9                 | 6.6  |
| Bad mannered                   | 115             | 84.6 | 21                | 15.4 |
| Aggressive                     | 116             | 85.3 | 20                | 14.7 |
| Poor                           | 108             | 79.4 | 28                | 20.6 |

*Gender Jobs Choice.*-In the attribution of occupations, the sample expressed a more articulated professional repertory for the male silhouette. In fact, of the 33 occupations initially proposed, 17 of the 25 stereotypically assessed by children were considered typically masculine while 8 were associated with the feminine silhouette (see Table 3).

The occupational representation of the male silhouette was formed both of practical-manual activities and of specialized and cultural relevancy in the Italian context. Practical-manual activities included the following jobs, repairing broken-down cars, driving a truck, repairing water pipes, building houses, working in a factory, cleaning the streets, begging, and delivering the mail. Specialized activities included putting out fires and arresting thieves, piloting an airplane, directing the traffic, and treating teeth. Culturally relevant and socially desirable activities consisted of writing in newspapers, judging suspects, directing films, and going to the moon.

For the female silhouette, this representation instead consisted of a reduced number of activities mainly of a domestic type (see Table 3): cutting and sewing dresses, being paid to clean people’s houses, dancing on the stage, taking care of children, teaching at school and selling flowers, making and selling sweets, and curing sick people.

Participants considered only the following occupations in a balanced way for the two silhouettes: making appointments (male=45.6% vs female=54.4%), theatre acting (male=45.6% vs female=54.4%), serving in restaurants (male=41.2% vs female=58.8%), and slicing ham and cheese (male=48.5% vs

female=51.5%). The remaining occupations did not approach the stereotype threshold.

TABLE 3  
GENDER JOBS CHOICE: ATTRIBUTIONS OF OCCUPATIONS BY SILHOUETTES ( $N = 136$ )

| Choice of Occupation | Male Silhouette |      | Female Silhouette |      |
|----------------------|-----------------|------|-------------------|------|
|                      | <i>n</i>        | %    | <i>n</i>          | %    |
| Astronaut            | 108             | 79.4 | 28                | 20.6 |
| Baby sitter          | 27              | 19.9 | 109               | 80.1 |
| Ballet dancer        | 12              | 8.8  | 124               | 91.2 |
| Truck driver         | 131             | 96.3 | 5                 | 3.7  |
| Dentist              | 97              | 71.3 | 39                | 28.7 |
| Maid                 | 10              | 7.4  | 126               | 92.6 |
| Doctor               | 36              | 26.5 | 100               | 73.5 |
| Florist              | 17              | 12.5 | 119               | 87.5 |
| Journalist           | 116             | 85.3 | 20                | 14.7 |
| Judge                | 114             | 83.8 | 22                | 16.2 |
| Plumber              | 130             | 95.6 | 6                 | 4.4  |
| Teacher              | 17              | 12.5 | 119               | 87.5 |
| Mechanic             | 134             | 98.5 | 2                 | 1.5  |
| Beggar               | 106             | 77.9 | 30                | 22.1 |
| Mason                | 129             | 94.9 | 7                 | 5.1  |
| Sweeper              | 122             | 89.7 | 14                | 10.3 |
| Laborer              | 129             | 94.5 | 7                 | 5.1  |
| Confectioner         | 22              | 16.2 | 114               | 83.8 |
| Pilot                | 121             | 89   | 15                | 11   |
| Policeman            | 130             | 95.6 | 6                 | 4.4  |
| Fireman              | 130             | 95.6 | 6                 | 4.4  |
| Postman              | 102             | 75   | 34                | 25   |
| Film director        | 113             | 83.1 | 23                | 16.9 |
| Dressmaker           | 7               | 5.1  | 129               | 94.9 |
| Traffic warden       | 108             | 79.4 | 28                | 20.6 |

*Gender stereotypy by domain.*-The sample displayed high gender stereotypy in all three domains: for Gender Toys Choice,  $M=.89$ ,  $SD=.09$ , for Gender Traits Choice,  $M=.82$ ,  $SD=.17$ , and for Gender Jobs Choice,  $M=.87$ ,  $SD=.10$ . Pearson correlations were calculated among means of gender stereotype for the three domains, and the only significant correlation occurred for the Gender Jobs Choice and the Gender Toys Choice ( $r=.52$ ,  $p<.0001$ ).

To verify initial hypotheses, a 2 (sex of participants) x 4 (age group) x 3 (type of task: Gender Toys Choice, Gender Traits Choice, and Gender Jobs Choice) analysis of variance was carried out on the mean gender stereotypy reached by each pupil. A significant main effect of sex of children was noted only on the Gender Toys Choice ( $F_{3,126}=7.80$ ,  $p=.006$ ). In fact, girls ( $M=.92$ ,  $SD=.07$ ) had higher mean gender stereotyping than boys ( $M=.87$ ,  $SD=.11$ ), that is, the girls

expressed more rigidly gender-typed choices of toys. There were no significant differences for ages of participants in attributions related to the three gender choices ( $F_{9,384}=1.18, p=.30, ns$ ).

## DISCUSSION

The present study contributed to verifying Italian children's knowledge and endorsement of gender stereotypes in terms of the framework for gender schema theories.

Comparing attributions, the toys stereotypically attributed by our sample to the male and female silhouettes appeared in line with the results of the studies by Connor and Serbin (1977), Garrett, Ein, and Tremaine (1977), and Fagot, Leinbach, and O'Boyle (1992), in which the airplane and the soldiers were viewed as highly stereotypical masculine, just as the doll and the tea set were judged feminine. The present results also supported observation by O'Brien and Huston (1985), and Poulin-Dubois, *et al.* (2002), concerning toys such as train, truck, and tools (stereotypically masculine) and doll and tea set (stereotypically feminine). It was also possible, subsequently, to report a kind of symmetry between the typical attributions produced by the present sample for the male and the female silhouettes and expressions of gender differences in play style (e.g. Maccoby, 1998). In fact, the toy typologies attributed to the masculine, inspired by the idea of movement and warfare (with and without weapons) echoed the marked male play style characterized by lively physical combat and competitiveness, often different from the typical female play style, characterized by indoor activities and dyadic relationship.

For the Gender Traits Choice, some of the 10 sociocognitive traits that our sample typically attributed to the male silhouette evoked the characteristics previously indicated for male play style: brave, strong, aggressive, as reported by Williams and Bennett (1975), and bad mannered can be referred to physical and verbal aggressive characteristics, assertiveness, and dominance, typical for the male silhouette. The female silhouette was characterized by this sample exclusively with sweetness. This last result, considering the limited numerical consistency of the stereotypical traits (only 11 out of 36 initially proposed), suggested that the male profile was more articulated than the female, but, in many ways, negatively characterized.

Regarding Gender Jobs Choice, results suggested a quantitatively wider and more heterogeneous articulation for the male profile; in fact, the latter profile was attributed to occupational roles that in the Italian social context ranged from the practical-manual activities requiring more physical energy to the conceptual and socially desirable activities which need particularly high intellectual abilities and competence. The occupational range attributed by the participants to the female profile was less varied. In both cases, however, there were some points in common with the literature. In particular, Signorella and Liben's research (1985)

in which boys and girls considered occupations like pilot and mechanic as typically masculine, and occupations like maid and baby-sitter as typically feminine. Particularly important was the occupation of doctor, valued as a typically feminine occupation while in other studies it was considered typically masculine (e.g. Carter & Patterson, 1982; Signorella & Liben, 1985). This difference could be explained through the social changes in which both the social occupational representations and male and female education and employment opportunities in the Italian social context have been modified.

Results confirmed the initial hypothesis on gender stereotyping: all children, without any differences for age group, showed high gender stereotyping in choice of toys, traits, and occupations, as was consistent with Martin, *et al.*'s work (1990).

Differences by the sex of children emerged: girls displayed higher gender stereotyping than boys, but only on Gender Toys Choice. This last result is in opposition to, e.g., Payne's (1981) and Signorella and Liben's research (1985). One possible explanation for the observed sex-related differences could be inferred from use of a more rigidly sex-typed model of education for girls in the examined context. Research should be carried out in other areas of Italy to assess whether the results of this study can be generalized.

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