

## THE REPRESENTATION OF MALE AND FEMALE GENDER ROLE DEVELOPMENT IN CHILDREN'S DRAWINGS: AN EXAMINATION OF 20 YEARS OF CHANGES IN ITALIAN CULTURE AND SOCIETY

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### *Abstract*

*Drawings of male and female human figures are useful indicators of how children perceive gender as a cultural construct. From pre-school age, children use anatomical and stylistic elements (e.g., haircuts and clothing) to characterize the gender of their characters. Using the Classroom Drawing Test (Quaglia & Saglione, 1990), the present study investigated how Italian primary schoolchildren characterized the gender of their drawn figures. The data were compared to a similar study carried out by Quaglia et al. (2001) to verify how these graphic representations have changed over time. Thus, the same coding schema that was employed in the prior study was used to code the drawings of 711 children (328 boys and 383 girls) aged 7–11 years. The comparison between the two studies, carried out using descriptive statistics and bivariate analyses, highlighted a general decrease in the usage of details to characterize the gender of the characters (especially for male figures) and a smaller differentiation of the two genders. However, female figures tended to preserve a greater characterization related to gender. The results are discussed in the context of cultural changes in Italian society.*

Keywords: Gender roles; Children's drawings; Classroom drawing; Italian schoolchildren

### **Introduction**

In all cultures, children engage in pictorial or graphic representations called children's drawings (Longobardi et al., 2001; 2012). From a cognitive perspective, it can be assumed that the child does not graphically represent the external world as if it were an exact and objective copy. Instead, the child expresses in their drawing what they feel, think, and know about the surrounding reality (Cox, 1993, 2005; Quaglia et al., 2013, 2015). By depicting

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their daily lives, children's graphic representations are also influenced by the culture to which they belong, and their drawings thus become a testament to children's cultural experiences and how they process cultural information (Unger-Heitsch, 2001). Human figure drawings, one of the most common elements found in children's drawings, are an example of how culture can influence children's representations (Lamm et al., 2018).

Several authors have commented on cultural differences in the representation of the human figure across cultures (Cox, 2005; Jolley, 2009; Lamm et al., 2018). These differences may reflect cultural differences in how gender is perceived and represented. In this sense, drawings depicting male and female human figures are useful indicators of how the child perceives gender as a cultural construct.

Gender is an essential element in the construction of an individual's identity. From the perspective of social cognitive theory of gender role development (Bussey & Bandura, 1999), the child is constantly exposed to gendered behaviors and role models that help to constitute his or her conception of male and female gender characteristics. Such representations would therefore be reflected in children's drawings. It has been reported that children as young as preschool age depict certain gendered aspects in their drawings (Cox, 1993; Longobardi et al., 2017) and use anatomical and stylistic elements (e.g., haircut and clothing) to characterize the gender of their characters (Quaglia et al., 2001; Slitton & Light, 1992).

If behavioral gender expression is influenced by cultural context, we assume that there are differences between cultures and/or that gender expression changes over time in each culture. Moreover, such differences and changes should be reflected in children's graphic representations of gender, but research in this area, particularly in non-American Western societies, is very limited.

Some contributions in this direction represent research studies that examine how female and male scientists are drawn (Bozzato et al., 2022; Ferguson et al., 2020; Miller et al., 2018). Due to gendered science stereotypes that associate the profession of scientist with the male gender, children very rarely drew a female scientist in the last century. However, in recent years, thanks to greater gender equality and women's increased participation in the world of science, the number of boys and girls drawing a female scientist has increased significantly (Miller et al., 2018). This could be due to children being exposed to female science role models. However, the figure of the scientist is a specific figure associated with particular contexts, tasks, and stereotypical characteristics (Miller et al., 2018); therefore, while these data can reassure us about the effects of culture on gender representation, they tell us little about the many details that children spontaneously use in graphic representations of male and female gender and, in particular, how these have changed over time.

As noted earlier, Western cultures have experienced profound changes in their social structures since the 1960s that have led to greater gender equity

(Fagan et al., 2018; Lamm et al., 2018; Lomazzi et al., 2019). These developments may also have led to differences in how gender and gender issues are represented. Although there is not complete agreement in the literature (Kuipers et al., 2017), evidence from several studies seems to support the idea that more equality has also led to stereotypical representations in the mass media (Lindner, 2004). Along these lines, a German study (Lamm et al., 2018) compared the representation of gender in drawings of the human figure in two cohorts of children (from 1977 and 2015). In the 2015 cohort of children, the authors found a greater balance between the two genders and a greater bias for female figures than in 1977. In addition, the authors found that female human figures in 2015 were more typified (i.e., reported a significantly higher number of gender-specific details), while no significant differences were found with respect to masculinity. These numbers suggest a greater interest in the female gender and, according to the authors, could be due to greater gender equity and self-esteem among the female gender. These figures are also consistent with an earlier study by Tolor and Tolor (1974) conducted with an American sample of children whose average age was higher than that of the German study.

Italy, like other countries, has experienced social changes that have led to greater fairness between the sexes. However, Italy is still considered a gender-traditional country (Fabris et al., 2018). The level of gender equity remains low compared to other European countries (Bekhouche et al., 2014), and the mass media tend to maintain gender differences in the portrayal of male and female more than in other countries (Kuipers et al., 2017). However, the study of such representations by children in Italy has been completely neglected. The only study in this direction was conducted two decades ago by Quaglia et al. (2001). The authors found that almost 50% of male but only 12% of female children did not characterize their characters from a gender perspective. Females tended not only to characterize characters more in terms of gender, but also to use more details.

Short hair and long skirts were the elements most used by children to characterize males and females, respectively, while trousers were useless as a discriminating element. In addition, the authors noted that accessories typically associated with the male figure (pipes, weapons, etc.) and the female figure (earrings, caps, handbags, etc.) were rarely shown, except for heeled shoes, which were most reported as an element of women's clothing (Quaglia et al., 2001).

The authors of the study hypothesized that the difficulties of male children in discriminating in their drawings with respect to gender were also due to the fact that many characteristics associated with the male gender were somewhat discouraged; therefore, the male figure was losing its stereotypical characteristics (Quaglia et al., 2001).

The female figure, on the other hand, remained more characterized, not only by greater equity but also by the traditional entrustment of the care and education of children to the female gender. This favored a better overall

evaluation. In particular, for females who identified themselves in terms of their gender, there was a more careful representation of the female gender in their drawings.

## **Objective**

However, no other empirical study has been conducted on gender representation in drawings of Italian children, and no recent study has been conducted to observe any changes over time. Therefore, our study is an exploratory study aimed at observing: 1) how children represent gender stereotypes through class drawings; 2) whether there are gender and age-related differences in the world of gender representation in drawn figures; 3) to compare drawings made by children recruited in our study with drawings made by children 20 years ago in another study to determine any differences in the frequency and modality of gender representation by school-aged children.

## **Method**

### *Participants*

The current research is a comparison of two different studies. The first study was conducted in 2000, with the participants recruited from six public primary schools located in northern Italy. The analytical sample comprised 1070 children (539 boys and 531 girls;  $M_{age}=8.44$ ,  $SD=1.67$ , range 6-11 years). The second study was conducted in 2020, with the participants recruited from four public primary schools located in the same area as Study 1. In this case, the sample comprised 711 children (328 boys and 383 girls;  $M_{age}=8.39$ ,  $SD=1.65$ , range 6-11 years). In the two studies, the exclusion criteria were as follows: mental illness, mental retardation, and learning disabilities. In both studies, individual consent for participation and active parental consent were obtained. The participants and their parents were assured of data confidentiality and informed that participation in the study was voluntary. The participants were also informed of the nature and objectives of the study in compliance with the ethical code of the Italian Association for Psychology (AIP).

### *Measures*

Considering the aims of the study, we used the Classroom Drawing Test (Quaglia & Saglione, 1990), in which children are asked to draw their class. This instrument is designed to investigate the child's perception of "feeling good" at school in terms of various aspects of life in class (relationships with the teacher and classmates, experiences of learning, experiences of themselves as pupils, etc.). In continuity with Study 1, the aspects considered and analyzed were figures of classmates (males and females).

### *Procedure and data analysis*

With the help of the teacher who was present, the children were given white sheets, pencils, and crayons. The coding of the gender characteristics

represented by the characters drawn by the children was conducted following the coding scheme proposed by Study 1 and reported in Table 1 (Quaglia et al., 2001).

Table 1. Graphical markers used by the participants to characterize the gender of the figures drawn

	<i>Male figures</i>	<i>Female figures</i>
Clothing	trousers tie or bow tie bodice or jacket belt trouser-zipper	long dress or skirt female decorations on the dress high-heeled shoes
Physical appearance	short hair	long hair narrow hips heart-shaped mouth long eyelashes
Secondary sexual characteristics	beard moustache	breasts

The presence in the drawings of a man’s clothing or a woman’s clothing, as well as haircuts and secondary sexual characteristics (*e.g.*, beards or moustaches in men and breasts in women) were considered as indicators used by the children to characterize the gender of the figures they drew. Table 1 reports the precise graphic markers detected to characterize the gender of the figures drawn by the participants.

Trousers were considered as a gender marker if all the characters (male and female) in an individual’s drawing wore trousers or if some female figures wore trousers and other females wore skirts. Similarly, haircuts were considered as a gender marker only if all the male figures and all the female figures had the same haircut (short hair and long hair, respectively).

The children’s drawings were codified separately by two independent researchers trained by members of the research team and the inter-rater reliability was calculated using the Cohen index, which was found to be 0.91. The drawer was categorized as *gender characterizing* (GC) if at least one detail characterizing the gender of the figures appeared in their drawing. Otherwise, they were categorized as *non-gender characterizing* (NGC).

In both Study 1 and Study 2, Chi-square test, t-test, and one-way univariate ANOVA were used to compare the children’s drawings. Percentages were then used to compare the results of Study 1 and Study 2. All the statistical analyses were performed using SPSS Statistics 26.0 software.

## Results

Table 2 shows the frequencies and percentages of GC and NGC children related to the samples of Study 1 and Study 2, subdivided based on the drawer’s age and gender.

In the two studies, at each age, the percentage of GC girls was higher than that of GC boys, except for the age of 10 years in Study 2, where the two percentages were similar. However, on the whole, the number of GC girls was greater than that of GC boys, with a statistically significant difference in both Study 1 ( $\chi^2[1]=173.57, p<.001$ ) and Study 2 ( $\chi^2[1]=12.12, p<.001$ ).

Regarding age, in Study 1, GC children were on average older (8.52 years) than NGC children (8.26 years), and the difference was statistically significant:  $t(1067)=2.82, p>.005$ . By contrast, in Study 2, GC children were on average younger (8.29 years) than NGC children (8.59 years), and the difference was statistically significant:  $t(705)=-2.29, p<.05$ .

The mean of male graphic markers, the mean of female graphic markers, and the mean of gender (male and female) graphic markers were calculated for the GC children. For male drawers, these means were, respectively, 0.68, 0.71, and 1.39 (Study 1) and 0.71, 0.45, and 0.58 (Study 2), while for female drawers, they were, respectively, 1.24, 1.95, and 3.19 (Study 1) and 0.50, 1.32, and 0.71 (Study 2). In both studies, in all cases, the difference between male and female drawers was statistically significant (with  $p<.001$  at  $t$ -tests); however, while in Study 1, girls used on average a greater number of male, female, and gender markers than boys, in Study 2, this happened only for female and gender markers, while boys in Study 2 used, on average, more male graphic markers than girls.

A one-way ANOVA was employed to test the difference in relation to age of the means of male graphic markers, female graphic markers, and gender (male and female) graphic markers. In Study 1, the difference was statistically significant with respect to male markers ( $F_{208,812}=17.60, p<.001$ ), female markers ( $F_{315,822}=13.38, p<.01$ ), and gender markers ( $F_{106,791}=196.26, p<.001$ ). In Study 2, the difference was statistically significant only in relation to gender markers ( $F_{293,855}=2.35, p<.05$ ) and female markers ( $F_{290,271}=3.82, p<.005$ ), not with regard to male markers.

Table 2. Frequencies and Percentages of GC and NGC children, subdivided for drawer's age and gender, related to the samples of Study 1 and 2

Age	Drawer's Gender	Study (N)	Frequency (N)	Gender characterizing Drawers (%)	Non-gender characterizing Drawers (%)
6 years-old	Male	1	90	37.8	62.2
		2	52	50.0	50.0
	Female	1	70	90.0	10.0
		2	61	83.6	16.4
7 years-old	Male	1	107	46.7	53.3
		2	81	60.0	40.0
	Female	1	115	88.7	11.3
		2	77	74.0	26.0
8 years-old	Male	1	91	51.6	48.4
		2	48	74.5	25.5
	Female	1	80	87.5	12.5
		2	43	79.1	20.9

Table 2. Frequencies and Percentages of GC and NGC children, subdivided for drawer's age and gender, related to the samples of Study 1 and 2 - *continued*

Age	Drawer's Gender	Study (N)	Frequency (N)	Gender characterizing Drawers (%)	Non-gender characterizing Drawers (%)
9 years-old	Male	1	93	54.8	45.2
		2	45	47.7	52.3
	Female	1	93	87.1	12.9
		2	65	70.8	29.2
10 years-old	Male	1	86	50.0	50.0
		2	75	60.0	40.0
	Female	1	82	85.4	14.6
		2	89	59.1	40.9
11 years-old	Male	1	72	61.1	38.9
		2	48	48.1	51.9
	Female	1	91	86.8	13.2
		2	27	62.5	37.5
<i>Grand Total</i>	Male	1	539	49.9	50.1
		2	328	57.8	42.2
	Female	1	531	87.6	12.4
		2	383	70.7	29.3
	Total (males and females)	1	1070	68.6	31.4
		2	711	64.8	35.2

Table 3 reports the percentages of the details used to characterize male and female figures calculated based on the total of the details employed by GC male and female drawers in Studies 1 and 2. In both Study 1 and Study 2, the details most employed by both boys and girls to characterize male figures were short hair and trousers. However, in Study 2, the percentage of girls who chose to characterize their male characters through trousers decreased from 15.27% to 5.70%. In Study 1 and Study 2, the details most used by boys and girls to characterize female figures were long hair and a skirt (or a long dress). While the percentage of boys using long hair to depict females decreased from 26.25% to 23.89% between Study 1 and Study 2, the percentage of girls using the same marker to depict female characters increased from 23.89% to 37.40%. In the 10 years dividing Study 1 from Study 2, the percentage of children using a skirt or long dress to characterize female figures reduced from 20.19% to 7.20% in the male sample and 19.82% to 12.7% in the female sample.

GC drawers used a different number of gender details to depict their figures, ranging from one to seven graphic markers. Table 4 shows the number of gender details used by GC children to depict their figures in Studies 1 and 2. Regarding the total sample, in both studies, the majority of drawers (38% in Study 1 and 52.2% in Study 2) used several details to characterize the gender of the figures (*e.g.*, trousers vs. skirt or short hair vs. longhair). Comparing boys and girls, in both studies, the percentage of male drawers using one or two gender details was higher than that of girls, while the percentage of girls using three or more markers was higher than that of boys. However, the comparison between the two studies highlighted a general decrease in the usage of details to

characterize the gender of the characters. In Study 1, only 4.9% of GC drawers employed one marker, while the same percentage became 19.4% in Study 2. The number of children using four or more details to characterize a gender was higher in Study 1 than in Study 2. Only the percentage of drawers using three markers was a little higher in Study 2 (14%) than Study 1 (12.4%).

Table 3. Percentages of the details used to characterize male and females figures calculated on the total of the details employed by GC drawers in Study 1 and 2

<i>Details used for male figures</i>	<i>Males</i>		<i>Females</i>	
	Study 1	Study 2	Study 1	Study 2
trousers	18.57	21.3	15.27	5.70
bodice-jacket	0.40	0.30	0.54	0
tie-tie bow	1.08	0	1.02	0
belt	2.15	0.30	0.66	0
trouser-zipper	0.40	0	0.06	0.30
short hair	24.50	39.90	19.16	21.80
beard-moustache	1.89	0.30	1.38	0

  

<i>Details used for female figures</i>	<i>Males</i>		<i>Females</i>	
	Study 1	Study 2	Study 1	Study 2
skirt or long dress	20.19	7.20	19.82	12.7
high-heeled shoes	1.75	1.90	5.87	3.35
female decorations on the dress	0.14	1.60	2.63	4.66
long hair	26.25	27.10	23.89	37.40
long eyelashes	0.67	0.50	2.69	8.44
heart-shaped mouth	0.40	0.50	2.52	1.45
narrow hips	0.27	0.90	0.54	4.51
breasts	0.67	0	1.26	1.02

Table 4. Percentage of the number of gender details or markers employed to characterize the gender of the figures drawn

Drawer's gender	Type of Study	1 gender details	2 gender details	3 gender details	4 gender details	5 gender details	6 gender details	7 gender details
Males	1	6.3	57.3	7.4	20.1	5.2	1.1	2.6
	2	22.9	62.2	8.5	5.9	0	0	0.5
Females	1	4.1	26.9	15.2	27.1	17.0	5.6	4.1
	2	17.0	45.2	17.8	11.9	3.7	3.3	1.1
Total (M+F)	1	4.9	38.0	12.4	24.5	12.7	4.0	3.5
	2	19.4	52.2	14.0	9.4	2.2	2.0	0.9

## Discussion

The main aim of this work has been to investigate how Italian children represent gender characteristics in their drawings, comparing the children's drawings collected in 2020 with the drawings produced by a group of Italian children twenty years ago.



It emerged that females in both studies tended to report a greater characterization of the genders of the characters depicted than males. However, while in Study 1, females reported more male, female, and gender marker indicators, in Study 2, females only reported more female markers and gender markers than their male peers. Compared to the previous study, this study tends to emphasize that females remained more attentive to the sexual stereotyping of characters in drawing and, in particular, paid attention to the female gender.

In general, however, the data seem to show that in Study 2, children, both male and female, tended to report fewer details to characterize the two sexual genders than in the previous study. These data, therefore, seem to suggest that in recent years, the graphic indicators characterizing the two genders have tended to fade, returning less differentiation between the two sexual genders, as perceived by children and represented in their drawings. This aspect seems to be of particular interest for the representation of the male gender. Hair and trousers are the graphic markers most used by males and females in both studies to characterize the male gender. However, the use of these markers decreased considerably in both sexes in Study 2. As for the female gender, skirts and long dresses were among the markers most used by both sexes to represent the female gender; however, these markers also experienced a dramatic percentage decrease in Study 2 compared to Study 1. In general, therefore, it seems from our data that compared to 20 years ago, children, both male and female, tended to use fewer graphic indicators to represent the male and female genders and that the main graphic indicators tended to be used less than in the previous study. These data, therefore, suggest a lower characterization of sexual genders in childhood drawings, thus indicating a reduction in the graphic representations of sexual genders, particularly for the representation of the male gender. To understand these data, a hypothesis could be established related to cultural changes affecting the relationships between the two genders and their representation at the cultural level, as well as through fashion and mass media.

In this direction, some evidence suggests that models represented by the mass media tend to report less differentiation regarding different aspects of gender (Kuipers et al., 2017). Therefore, the drawings may reflect a change in gender representations affecting Western cultures. Our study focused on the representations of classroom drawings, unlike other contributions that focused on the drawings of the human figure (Lamm et al., 2018; Tolor & Tolor, 1974). Faced with the request to draw a human figure, the child may be more inclined to draw children of their own sex, and this could apply in particular to females, particularly in this historical moment when we are witnessing greater egalitarianism between genders and when, compared to the past, greater self-esteem linked to belonging to one's own gender can be experienced (Lamm et al., 2018).

The children's drawings of their classroom, by contrast, seemed more appropriate not only because they allowed us to investigate equally the

representation of gender but also because by drawing the classroom group, composed of males and females, the children were more stimulated to represent sexual gender, allowing the observer to study the comparison between the different genders. Of course, the drawings of the classroom limit us in proposing comparisons regarding the possible increase in female figures represented by the child or the preference for one or other gender according to one's sex. However, and in accordance with previous evidence, although we see a general decline in the characterization of characters by gender, we observe a particular reduction in terms of the male figure.

Instead, females tended to retain their stereotypical characteristics and were more characterized than their male counterparts. The gender-specific market tends to associate the male gender with activities and accessories (*e.g.*, weapons) that can prompt a negative response from the teacher and thus lead children to omit these details. Some activities and elements, such as weapons, may be symbolically related to certain characteristics traditionally associated with the male gender, such as aggression and prevarication, which tend to be discouraged by educators. In this regard, a study conducted in the same city as the one in which our drawings were collected (in Northern Italy) indicated that teachers tended to discourage in male children behaviors typically and stereotypically associated with the male gender, such as competitiveness and dominant and aggressive tendencies, whereas such characteristics were instead partly solicited or at least not repressed in girls. The study also revealed that teachers tended to prefer and solicit loving, affectionate behaviors and values typically associated with the female world in children. Therefore, to avoid the disapproval of the teacher who was present at the time when this research was administered, the children may have been led to avoid representing graphic elements such as weapons that today evoke characteristics (typically male in this case) that are discouraged by the teacher. This reflection was also shared by Lam et al. (2018), who noted that in their sample, details typically indicated by the male gender-specific market were not represented by children, observing that this was not common in children's drawings produced outside the school environment. Moreover, as Quaglia et al. (2001) recalled, in Italian culture, childcare has traditionally been entrusted to the female gender and can therefore take on a particular value that leads children to better characterize female figures.

### **Conclusions**

In summary, our data suggest that gender is a dynamic social construct and that cultural changes may be reflected in the way gender is represented by children. Our data show that in the Italian context, female children appear to be more skilled and tend to characterize human figures more strongly in their drawings. In general, there tends to be less distinction between the two genders in children's representations, and this seems to be particularly relevant for the

male figure, which tends to be characterized less and for which fewer gender-specific graphic indicators are given. In contrast, the female figure tends to be more gender characterized and receives more attention from children. From a theoretical perspective, our study encourages us to think about how gender expression is related to cultural change, and it offers insights into looking at children's drawings as an appropriate tool for examining how children internalize and represent gender stereotypes.

#### *Limitations and future research directions*

Our results appear original compared to the current literature and should provoke thought about the representation of gender stereotypes in developmental age. However, our data cannot conclusively support any of these assumptions but encourage further investigation. Moreover, our data must be read with the limitations of research in mind. Indeed, our sample is numerically small and cannot be said to be representative of the Italian child population. Future studies could include larger and more representative samples and thus include areas other than northern Italy. Moreover, our study was conducted in Italy, so further research in other Western and non-Western countries could be interesting to understand the phenomenon and identify possible cultural differences. Moreover, our study did not measure other variables at the cultural or social level and only used children's drawing as an instrument. Future studies could therefore use observational instruments other than children's drawing and include cultural variables in their investigations.

#### *Ethics statement*

This study was carried out in accordance with the recommendations of Code of Ethics of Associazione Italiana di Psicologia (AIP). The protocol was approved by the Ethics Committee for Research (IRB protocol number 291061). In accordance with the Declaration of Helsinki, all parents gave written informed consent for children's participation in the study.

#### *Conflicts of interest*

The authors declare no conflict of interest.

#### *Author contributions*

All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

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