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A CROSS-CULTURAL EVALUATION OF CHILDREN'S DRAWINGS OF GENDER ROLE STEREOTYPES IN ITALIAN AND CAMBODIAN STUDENTS

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Abstract
Drawings of 'an individual on a working day' and 'on a non-working day' were collected from 203 children from Cambodia and Italy, aged seven to fourteen years. This cross-cultural study aimed to explore the influence of gender stereotypes in drawing, including similarities and differences according to nationality, gender, and age (children vs. pre-adolescents). As in previous similar drawing studies, same-gender figures were overwhelmingly portrayed, with no differences between the two nationalities, ages, and genders. Overall, females drew a greater number of opposite-gender figures than males. The tendency to draw males by females was stronger in the Italian sample. Some differences between Cambodians and Italians were also found concerning the identity categories of the characters drawn. Stereotyped masculine activities on a working day prevailed in the Italian sample. The results are discussed in relation to previous research in developmental psychology and invite future research to further consider cultural influences in the study of gender stereotypes in children and pre-adolescents.

Keywords: gender stereotypes; cross-cultural research; drawing

Introduction

In the psychological literature, gender stereotypes have been defined as the culturally shared set of beliefs and expectations pertaining to the differences between males and females in physical connotations as well as in roles, abilities,

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and personality traits (Kite, Deaux, & Haines, 2008; Ellemers, 2018). It is possible to differentiate trait gender stereotypes related to the psychological characteristics attributed to one of the genders from gender role stereotypes which, instead, are beliefs pertaining to the suitability of certain behaviors, roles, and activities to males or females, respectively. From a very early age, gender is a part of a child's self-concept (Leaper & Bigler, 2011; Prino, Pasta, Gastaldi, & Longobardi, 2019; Quaglia, Gastaldi, Prino, Pasta, & Longobardi, 2013; Ruble, Martin, & Berenbaum, 2006), and, afterward, children quickly learn know-how pertaining to the correlation between roles, activities, and gender. By the age of three, children start to correctly apply 'male/masculine' and 'female/feminine' adjectives (Kunh, Nash, & Brucken, 1978), also referring to themselves, and they are therefore able to distinguish males from females. However, the awareness of gender consistency, as to say the impossibility to change a belonging gender with another (*e.g.*, in case of cross-dressing), is acquired around age four to five (Zmyj & Bischof-Köhler, 2015). From that age onward, preferences and positive evaluations for one's pertinence group to the detriment of the outgroup formed by individuals of the opposite gender have been documented (Yee & Brown, 1994; Gasparini, Sette, Baumgartner, Martin, & Fabes, 2015). When children are able to consistently recognize themselves as a member of the male or female gender, they gradually start to learn the behaviors and activities, depending on their cultural environment, of their pertinence gender and the other (Longobardi, Prino, Fabris, & Settanni, 2017). According to the prediction of the Theory of Cognitive Development (Kohlberg, 1966), the knowledge of social norms and stereotypes related to gender increases with age (Serbin, Powlishta, & Gulko, 1993). It has been observed that already at age five, the achievement relating to gender-specific activities reaches an elevated level (Edelbrock & Sugawara, 1978). According to a study conducted by Leinbach, Hort, and Fagot (1997) with four, five, and seven-year-old children, a consistent knowledge of the concrete as well as metaphoric aspects of male and female attributes has emerged and has been observed to increase with age. In the comprehensive survey conducted by Williams and Best (1982), which considered children from 24 different cultures, stereotypical skills were already present at age five. They increased starting from age eight. Furthermore, more refined aspects relevant to gender stereotypes are acquired during adolescence. The attitude of children toward what is typically masculine or feminine is at first quite rigid, especially between ages five and six (Trautner et al., 2005). It is still not quite determined whether the categorization

linked to gender becomes more flexible with aging. Some studies have indeed observed that, with aging, the categorization that children make of male and female roles and activities becomes more flexible (Martin & Ruble, 2004). In another study, on the contrary, such increased flexibility has not been observed (Signorella, Bigler, & Liben, 1993).

Furthermore, a difference between males and females has been detected in the literature in connection with age and with how much children know about gender roles: boys, compared to girls, seem to acquire gender-specific knowledge later, and in a less sophisticated way. Girls are able to deal with male-specific characteristics and activities better (O'Brien et al., 2000). This result has been interpreted as inferring, in the Western culture, a stricter education for males to adhere to their gender role, and furthermore, clearer and less ambiguous characteristics when referring to males compared to the female context. In the above-cited study by Leinbach et al. (1997), boys and girls acquired more detailed knowledge based on aspects and activities relevant to their gender; however, girls show a better understanding of male connotations in comparison with what males know of female connotations.

While there are several studies about gender stereotypes in children, an aspect that has been less studied and not in recent times is the comparison between Western and Eastern children. There have been studies, for example, comparing American and South African children (Albert & Porter, 1986), and others comparing Portuguese and Brazilian children (Neto, Williams, & Widner, 1991). In general, a substantial confirmation of the William and Best model (1982) has emerged from cross-cultural studies utilizing methodologies other than drawings. The model assumes a similarity, in children from different cultures, regarding the characteristics attributed to both genders, molded only by a lower degree of cultural influences.

Aims of the study

The present study is part of the above-mentioned research and observes the impact of gender stereotypes expressed in drawings made by Italian and Cambodian children and pre-adolescents, according to a cross-cultural perspective. The purpose is to explore similarities and differences in the representation of gender roles by the participants of different genders, ages, and cultures. We have observed European and Asian countries that are quite

interesting to compare due to their economic, social, and cultural differences. Italy is one of the world's most industrialized countries, while Cambodia is still a primarily rural country. According to the Asian Development Bank (2018), in 2014, 14% of the population was still living below the poverty line. Although rapidly evolving toward Western-type society models, Cambodian society (much like other societies in South-East Asia) is still based on collectivist-type values, emphasizing the interrelationship of human beings inside a community. In Italy, instead, an individualistic attitude that prioritizes individual interests and aspirations compared to the common good prevails. This is well-documented in contemporary research on children's future orientations (Bozzato, 2020). According to Hofstede's model (1980; 1986), it is possible to compare two cultures based on the degree of masculinity to determine the importance granted to the differences between gender roles (Hofstede & Associates, 1998). In societies where there is a high level of masculinity, the distinction between males and females is strict. In these cultures, the male dominates most of the power structure and social activities. Feminine societies are based on a higher level of gender equality and are more oriented toward mutual support between men and women. The latter societies attribute a greater value to human relationships, and to the care of people, instead of competing as it happens in masculine societies.

The masculinity index computed for Italy amounted to 70, a value higher than the European average (Hofstede, Hofstede, & Minkov, 2010). In Italy, indeed, the feminine presence in the decisional economic and political venues is lower than in the other European Union countries. In families as well, the Italian culture is characterized by masculinity. Compared to men, women are more involved in household chores, and they are marginalized in their working life. The latter is especially true in southern Italy, where a more traditional model prevails compared to the northern part of the country. Cambodia has not been considered by the Hofstede surveys. Nonetheless, Berkvens' (2017) studies revealed that Cambodians classify their culture as slightly more feminine, while external foreign observers have detected an elevated degree of masculinity in it. In Cambodia, for example, the presence of women in the higher contexts of civilian power is relatively scarce (Berkvens, 2009). However, the higher level of masculinity detected in Italy as well as in Cambodia could be interpreted differently. According to Hofstede et al. (2010) in Italy, boys develop, from elementary school onwards, personal and social values such as the eagerness to prevail and to have 'power' over other people.

In Cambodia, instead, there has been a resurfacing of masculinity in the last decades as a reaction to the Khmer Rouge regime (that condemned ambition and individual initiative). Due to interactions with Western culture after many years of isolation (Berkvens, 2009). Furthermore, many Cambodian males have started exhibiting behaviors typical of cultures with a high masculinity degree, such as rivalry and violence (Berkvens, 2009).

Method

Participants

The study sample is constituted of 102 Cambodian children and pre-adolescents (43 males and 59 females) and 101 Italian children and pre-adolescents (50 males and 51 females) between 7 and 14 years of age (M_{age}=10.28; S.D.=1.79). The t-test administration showed that males and females, of both the Cambodian and Italian samples, did not differ with regard to age (Italian sample: $t(99)=1.325$, p=.188; Cambodian sample: $t(100)=0.022$, p=.982). Considering the age of the individuals, encompassing children as well as pre-adolescents, it was decided to split the participants into two age groups: (1) 7-10-year-old children (63 Cambodians and 48 Italians for a total of 111 individuals); and (2) 11-14-year-old pre-adolescents (39 Cambodians and 53 Italians, for a total of 92 individuals). In both nations the sample was obtained by contacting two private schools, each comprising an elementary and a middle school.

The educational experience is similar in the two countries since it includes primarily lectures with one or more teachers in co-presence and, to a lesser extent, special projects and field trip. Furthermore, the time spent in class by students is almost the same in both countries.

Individual consent for participation, as well as active parental consent, were obtained. Participants were assured of data confidentiality and informed that participation in the study was voluntary. Participants were also informed of the nature and objective of the study in compliance with the ethical code of the Italian Association for Psychology (AIP).

Instrument

The present study employed drawing as an instrument to access mental representations in children and pre-adolescents about gender roles. Children's

drawings constitute one of the most natural means of expression and communication in child development (Longobardi, Pasta, Gastaldi, & Prino, 2017; Longobardi, Quaglia, & Iotti, 2015; Quaglia, Longobardi, Iotti, & Prino, 2015). Furthermore, it is considered a valid and non-intrusive method to inquire about gender representations according to the psychological literature (Colley, Mulhern, Relton, & Shafi, 2008). Taking cues from other studies on the exploration of gender roles in child development (Colley, Berman, & Van Millingen, 2005; Colley et al., 2008), a twofold task for the individuals of the study sample has been envisaged and predisposed. Tasks include: (1) Draw an individual, male or female as you prefer, who is performing an activity during any working day of the week; and (2) Draw an individual, male or female as you prefer, who is performing an activity during any non-working day of the week.

The dual test condition yielded a double amount of data to examine, providing better control of the results by comparing both conditions. It was helpful during the administration of the test to specify 'an individual, male or female as you prefer' to legitimate children and pre-adolescents to choose the gender of the represented individual freely. In the literature, it has been underlined that, in the various languages, generic terms such as 'individual' are often intended primarily as referring to males (Merritt & Kok, 1997).

Procedure

Participants were asked to use a simple grey pencil to obtain simple, clear, and easy to interpret drawings. Data collection was carried out during class hours in the two schools, in the presence of both a teacher and a researcher, the latter having familiarized with the participants in the previous days. In both countries, Cambodia and Italy, it took children and pre-adolescents almost 45 minutes to perform the test. At the end of the drawing task, the researcher asked a series of questions of each participant to gather and record the following information: gender and age of the drawer, the identity of the individual drawn, the activity performed by the individual, the context in which the activity was performed, and any other ancillary information that participants could offer on their drawing.

Strategy of analysis

Data were processed by running a quanti-qualitative analysis, utilizing the answers offered by the interview participants as categories. As far as the

identity of the individuals drawn, several clusters were created: (1) a boy, a girl (for answers such as "a boy", "a girl", "a young man", and similar expressions), (2) an adult ("a man", "a woman", "a sir", "an architect", etc.), and (3) another family member ("my brother", "my sister", "a cousin of mine", etc.). Moreover, the character's activity drawn was coded in one of three categories: (1) masculine stereotypical (*e.g.*, playing soccer, doing masonry work), (2) feminine stereotypical (*e.g.*, ballet dancing, household chores), or (3) neutral (*e.g.*, doing gardening, going to school). The aforementioned coding work was conducted, after having received specific training, by two independent Italian assessors as far as the drawings of the Italian children are concerned, and by two Cambodian assessors for the drawings of the Cambodian children. Finally, the level of agreement among the two assessors was calculated using the Cohen's kappa index. The results were 0.82 ($p<.001$) for the Italians and 0.77 ($p<.001$) for the Cambodian participants. According to the Landis and Kock (1977) rating, these values can be considered excellent.

Test analyses were run employing IBM SPSS Statistics software, version 25. The differences in gender, age, and nationality were analyzed using Chi-Square Test and Fisher's exact test. Due to the scope of the present study, the Binary Correspondence Analysis (Greenacre, 2017) was used in a case only to explore the association among nominal variables pairs.

Results

Gender of the figures drawn

As shown in Tables 1 and 2, in both conditions, 'Draw an individual in any working day of the week' and 'Draw an individual in any non-working day of the week', we found statistically significant differences between males and females, in both the Italian and Cambodian participants, in both age groups examined.

Table 1. Gender of the figures drawn in the experimental condition "*Working day*"

Country		Male		Female			
	Age	Draw a male figure	Draw a female figure	Draw a male figure	Draw a female figure	χ^2	Sig.
Italy	7-10	86.4%	13.6%	34.6%	65.4%	13.129	p<.001
	11-14	82.1%	17.9%	52.0%	48.0%	5.508	p<.01
Cambodia	7-10	78.6%	21.4%	17.1%	82.9%	23.773	p<.001
	11-14	93.3%	6.7%	33.3%	66.7%	13.514	p<.001

Table 2. Gender of the figures drawn in the experimental condition *"Non-working day"*

Country		Male		Female			
	Age	Draw a male figure	Draw a female figure	Draw a male figure	Draw a female figure	χ^2	Sig.
Italy	7-10	95.5%	4.5%	11.5%	88.5%	33.566	p<.001
	11-14	85.7%	14.3%	36.0%	64.0%	13.853	p<.001
Cambodia	7-10	89.3%	10.7%	5.7%	94.3%	44.363	p<.001
	11-14	86.7%	13.3%	12.5%	87.5%	20.986	p<.001

In both test conditions (working vs. non-working day), male children and pre-adolescents have mainly drawn individuals of their gender. The same can be said for the female children and pre-adolescents of the sample. Thus, we explored the association between different variables through the Binary Correspondence Analysis. The association between the variable pair 'nationality and age' with the pair 'drawer's gender and gender of the individual drawn,' in the test condition 'working day', has revealed the stronger tendency of Italian children and pre-adolescents in drawing individuals of their same gender in comparison with the Cambodian participants (*see* Figure 1).

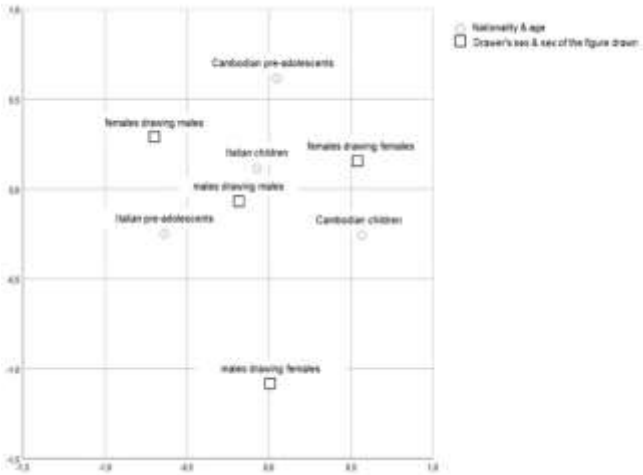

Figure 1. The association between the variable pair "nationality and age" with the pair "drawer gender and gender of the individual drawn", for the test condition "working day"

To draw individuals of their same gender for the females is more associated with age than with nationality. It is a phenomenon more associated with the youngest participants. A higher prevalence among Italian female participants, independently from their age, to draw male individuals has also been observed. Instead, males drawing female individuals are not clearly associated with any age or nationality profile.

Analyzing the same variables, in the 'non-working day' test condition, it is confirmed that males drawing female individuals is not associated with any particular age or nationality (*see* Figure 2).

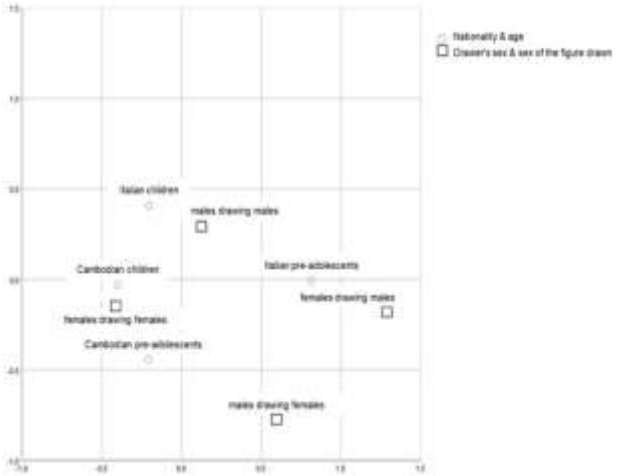

Figure 2. The association between the variable pair "nationality and age" with the pair "drawer's gender and gender of the individual drawn", for the test condition "Non-working day"

In both cultures, the drawing of male individuals by male participants is more associated with being children and not pre-adolescents; therefore, it is characteristic of the youngest participants. The aforementioned tendency is, however, stronger in Italian children than in Cambodian children. To draw female individuals, by female drawers, appears to be a more Cambodian phenomenon, especially regarding young girls. Finally, the association (with respect to the previous test condition) between Italian female pre-adolescents and the drawing of male individuals seems to be stronger.

Identity of the figures drawn

In Tables 3 and 4, the percentages of the different categories are regrouped, subdivided by origin, age, and gender, regarding the identity of the drawn individuals.

Table 3. Identity of the figures drawn in the experimental condition "*Working day*"

	Italian				Cambodian			
	Male		Female		Male		Female	
Age	7-10	11-14	7-10	11-14	7-10	11-14	7-10	11-14
Themselves	13.6%	0	11,5%	0	21,4%	21,4%	20%	20,8%
A boy/a girl	9.1%	14,8%	23,1%	4%	10,7%	0	8,6%	8,3%
An adult	36.4%	51,9%	23,1%	56%	39,3%	42,9%	40%	37,5%
Their mother	18.2%	7,4%	11,5%	12%	3,6%	0	2,9%	0
Their father	22.7%	14,8%	11,5%	0	3,6%	0	5,7%	0
Other families	0	3,7%	19,2%	0	10,7%	14,3%	17,1%	20,8%
Their teacher	0	7,4%	0	28%	10,7%	21,4%	5,7%	12,5%

Table 4. Identity of the figures drawn in the experimental condition *"Non-working day"*

	Italian				Cambodian			
	Male		Female		Male		Female	
Age	7-10	11-14	7-10	11-14	7-10	11-14	7-10	11-14
Themselves	50%	25,9%	38,5%	24%	32,1%	26,7%	22,9%	29,2%
A boy/a girl	13,6%	25,9%	34,6%	28%	21,4%	13,3%	8,6%	20,8%
An adult	18,2%	37%	3,8%	36%	28,6%	26,7%	37,1%	29,2%
Their mother	0	0	19,2%	8%	3,6%	0	8,6%	0
Their father	4,5%	7,4%	0	4%	3,6%	13,3%	2,9%	0
Other families	13,6%	0	3,8%	0	10,7%	6,7%	14,3%	20,8%
Their teacher	0	3,7%	0	0	0	13,3%	5,7%	0

Considering the sample in its entirety, an influence due to age (but not to gender) in the 'working day' test condition only has been observed, with a higher tendency in children to draw themselves, a parent, a relative, or a child, and a stronger tendency in pre-adolescents to draw one of their teachers: $\chi^2(6)=16,037$; $p<.01$. The comparison between Italians and Cambodians has furthermore demonstrated the significant difference existing between the two groups, but in the 'working day' test condition only: $\chi^2(6)=28.856$; $p<.001$. In this test condition, Italians mostly drew a mother, a child, or a young boy, while Cambodians mostly drew other family members (other than parents) and one of their teachers.

The comparisons between the variables nationality/age group/test condition, and nationality/gender/test condition have been implemented by using

Fisher's test. No statistically significant differences between Cambodian males and females and Cambodian children and pre-adolescents have emerged. In the Italian sample, instead, a gender effect has emerged ($p<.05$) as well as an even stronger age effect ($p<.005$), in the 'non-working day' test condition. Additionally, an even stronger effect, $p<.001$, emerged in the 'working day' test condition. In both test conditions, Italian pre-adolescents (compared to children of the same nationality) preferred to draw one of their teachers or an adult individual. Children, instead, compared to pre-adolescents, showed a tendency to draw themselves. In the 'non-working' test condition, females mainly drew mothers and children. On the contrary, males preferred adult individuals, fathers, and other relatives.

Stereotyping and non-stereotyping activities

The drawings were subdivided into three categories by two independent assessors (in Italy and in Cambodia), considering the drawn activity independently from the identity of the drawn individual. The categories were: (1) stereotypical masculine activity, (2) stereotypical feminine activity, or (3) neutral (*i.e.*, not stereotypical masculine nor stereotypical feminine) activity.

For the two test conditions in both cultures, neutral drawings not representing stereotypical activities prevailed (*see* Tables 5 and 6). Furthermore, in this case, a series of analyses has also been performed to verify the differences due to nationality, age group, and gender (performing the Chi-Square test in only one case. In the other cases, the Fisher's test has been employed). Considering the sample in its entirety, an effect has emerged due to gender but not to age, both in the 'working day' condition ($p<.05$), as well as in the 'non-working day' ($\chi^2(2)=9.079$; $p<.01$). More males tended to draw stereotypical masculine activities. In comparison, more females drew stereotypical feminine activities or neutral activities. The comparison between Italian and Cambodian participants has, moreover, proven the existence of a significant difference between the two groups, but this is true only in the test condition 'working day' ($p<.001$). It shows a marked prevalence of Italians drawing stereotypical masculine activities. On the contrary, in the Italian sample, an effect due to gender ($p<.01$), but not to age, has emerged in both test conditions where males tended to draw more stereotypical masculine activities than females.

Table 5. Categorized activities according to the typical gender in the experimental condition "*Working day*"

	Italian				Cambodian			
	Male		Female		Male		Female	
	7-10	11-14	7-10	11-14	7-10	11-14	7-10	11-14
Typical male activity	45,5%	39,3%	23,1%	28%	7,1%	26,7%	2,9%	8,3%
Typical female activity	0	3,6%	3,8%	0	3,6%	6,7%	5,7%	4,2%
Neutral activity	54,5%	57,1%	73,1%	72%	89,3%	66,7%	91,4%	87,5%

Table 6. Categorized activities according to the typical gender in the experimental condition "Non-working day"

	Italian				Cambodian			
	Male		Female		Male		Female	
	7-10	11-14	7-10	11-14	7-10	11-14	7-10	11-14
Typical male activity	22,7%	39,3%	7,7%	12%	17,9%	26,7%	11,4%	20,8%
Typical female activity	4,5%	3,6%	7,7%	12%	0	0	8,6%	4,2%
Neutral activity	72,7%	57,1%	84,6%	76%	82,1%	73,3%	80%	75%

Discussion

In this study, we wanted to observe the similarities and differences in the representations of gender roles between Italian and Cambodian children and pre-adolescents, males and females. The two countries have different socio-economic and cultural characteristics but share a higher level of masculinity. We have tried to underline the differences due to gender and age group. The data obtained are in line with previous international studies that have observed the impact of gender stereotypes on children, using drawing as a study methodology. Furthermore, it is possible to detect some differences from the data due to the cultural background. When asked to draw an individual performing an activity on a working day (first test condition) and on a non-working day (second test condition), Italian and Cambodian children and pre-adolescents mostly drew an individual of their same gender in both test conditions. This result confirms previous studies on gender roles that have employed children's drawings as a study method; namely, the request to draw an individual (Colley et al., 2005; Colley et al., 2008). The literature interprets this finding as a sign of better attention given by the participants, still in development, to members of their own gender, as to say their preference in detriment of the outgroup (Yee & Brown, 1994). In both the cultures we examined, males (compared to females) drew fewer individuals of

the other gender, irrespective of their age. This could probably be ascribed to the fact that males, as documented in the literature, know less about occupations and activities specific to their female peers (Leinbach et al., 1997), or they pay them less consideration. This is particularly true in societies with a higher level of masculinity (Hofstede et al., 2010). Furthermore, the present study has highlighted interesting but complex associations between the examined variables. Hence, those associations should be studied further. For example, a stronger tendency in the Italian female participants, especially in the pre-adolescents, to draw opposite gender individuals compared to the Cambodian feminine participants has been observed. The same process, instead, was not relevant for males. Therefore, it would seem that the preference and the partiality to one's group could be attributed to a cultural influence (also connected to gender), up to now scarcely considered in the literature. On the contrary, a study has detected a higher tendency to draw individuals of the opposite gender in Western pre-adolescents compared to their younger counterparts (Colley et al., 2008).

As far as the identity of the drawn individual during a working day is concerned, the comparison between the two nations highlighted that Italian participants preferred to draw a mother or a child (or a young boy or girl), while same-age Cambodian participants tended to draw members of the family (other than parents) and their teachers. It would seem that, for the Cambodian children, the enlarged family and all the adults with educational functions offer the most profound reference role compared to what Italian children perceive. Cambodia (as other Asian countries) has a high degree of collectivism (Berkvens, 2017) in comparison with the West, as to say a higher integration degree of the individual in groups (Hofstede et al., 2010). The influence of the enlarged family and of the teachers is certainly stronger in the collectivist societies than in the individualist ones which are more centered on the person and their small family group. Regarding the identity of the drawn individuals, an age effect emerged only in the Italian sample. Pre-adolescents tended to draw an adult or one of their teachers, while in children, the tendency was to draw themselves. The age effect probably shows a better attention and consideration toward the child world in children. In contrast, changes during pre-adolescence are directing the individuals' interest toward activities and occupations typical of the adult world (Ausubel, 2002; Bozzato, 2017). Another interesting result is in reference to the Italian girls and pre-adolescents that, compared to males, in representing an individual on a non-working day, chose to draw mostly their mother and a child.

On the contrary, Italian males preferred to draw adults, their father, and other relatives. These differences could reflect a more significant need for girl to identify themselves with the parent of their same gender. This is predicted by psychoanalytic studies from Freud (1905) onward regarding the higher interest that girls and female pre-adolescents have towards children. Furthermore, experimental studies in developmental psychology have demonstrated a preference by males, between ages seven and fourteen, to see their father as the central attachment figure (Freeman, Newland, & Coyle, 2010). However, those aspects do not seem to be characteristic of developing Cambodian males and females in the same manner.

Regarding stereotypically masculine, feminine, or neutral activities, the present study underlines that most participants chose to draw non-stereotypical activities (*e.g.*, eating, resting, washing, watching TV, etc.). In other studies, employing techniques other than drawing (*i.e.*, the request to choose male or female dolls to play with, depending on the description of an activity that the researcher was reading to the participant), a stronger tendency to stereotypical reasoning relative to gender has emerged (Albert & Porter, 1986; Neto et al., 1991). According to Colley et al. (2008), the drawing methodology probably allows children and pre-adolescents to perceive a lower pressure in meeting the researcher's expectations, compared to other methodologies that call for more immediate answers and are performed under adult supervision. From our analyses, by considering the total sample, it has emerged that while males tended to draw more stereotypically masculine activities, females instead preferred stereotypically feminine activities, in the cases of both working and non-working days. By doing so, males and females are more easily reproducing in their drawings stereotypical behaviors particular to their gender, as have already emerged from previous studies (Best et al., 1977; Albert & Porter, 1986). Based on the existing literature, we could explain that the above happens for various reasons. Firstly, it has already been demonstrated that the activities and the characteristics of their same gender are better remembered compared to the ones of the opposite gender (Carter & Levy, 1988). Secondly, the characteristic behaviors of their same gender are usually better known and learned (Best et al., 1977; Martin, 1993). Moreover, they are evaluated in more favorable terms. Boyatzis and Eades (1999) have, for example, proven that four- and five-year-old children prefer colored images, or figures, to be colored in compliance with their gender. They produce free drawings corresponding to their gender.

In drawing an individual in a working day, the comparison between Italian and Cambodian children has demonstrated a substantial prevalence by the Italian children to draw stereotypical masculine activities. It would therefore seem that Italian children and pre-adolescents of both genders (but especially males), when thinking about an activity performed by a young boy or by a man in a working day, easily think about an activity complying with the gender of the drawn individual, first and foremost a stereotypical masculine activity (*e.g.*, mason, engineer, soccer player, etc.). Cambodian children's and pre-adolescents' perceptions, instead, seem in this sense less strictly constrained by masculine stereotypes.

Conclusions

Some methodological limitations of the present study should be noted. First, participants from the two countries were recruited as convenience samples. Thus, the extent to which the present samples represent their respective populations is unknown. Consequently, caution is needed when generalizing the findings of the present study. Second, this study has relied only on children's and pre-adolescents' drawings, which may have been affected by recall and social desirability bias. Third, the cross-sectional nature of this study only highlights associations and does not provide any causal assumptions.

The above limitations notwithstanding, the present study contributes significantly to the growing body of cross-cultural research on gender stereotypes. Significantly, the research documented in this article has confirmed some empiric results already present in the literature. First and foremost, when the methodology used is the drawing of an individual, the tendency in children and pre-adolescents from different cultures is to draw individuals of their gender and, to a lesser degree, to draw stereotypical activities associated with their gender role. Furthermore, the findings presented here support the utility of theoretical models that include cultural influences that seem to emerge largely when utilizing the drawing technique instead of other methodologies. New research may investigate the relationship between nationality, gender, and gender stereotypes variables (*e.g.*, drawn figure's gender and activity).

Finally, the current findings highlight the need for children's education free from gender-stereotype in both Western and Eastern countries. Parents, teachers, educators, and society are responsible for teaching principles and values

that will enable children and pre-adolescents to be themselves and not to sacrifice their real psychological needs and future hopes to adapt to rigid gender-role stereotypes.

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