The Atlanta Committee for the 1996 Olympic Games (ACOG) has introduced official pictograms for the 1996 Centennial Olympic Games. These black-on-white silhouettes of 31 athletic events were purported to represent both women and men performers. In order to test that assertion, a study was conducted to determine if the Olympic pictograms were perceived to be gender neutral or gender biased by overrepresentation of male figures to symbolize athletic events. It was hypothesized that if the proposed pictograms were gender neutral in content and form, then children would be just as likely to identify the figures as either men or women; and, conversely, if the children perceived the pictograms as predominately male figures, then it would suggest that women are being left out of the images proposed by ACOG. A questionnaire packet was developed in order to investigate how children (n=779) from third through seventh grades perceived the gender of the athletes depicted in the ACOG pictograms. Each packet contained the 31 pictograms, one pictogram per page, randomly ordered. Each child was asked to circle a choice that completed an unfinished statement that appeared below each figure to elicit the child's perception of the gender of each pictogram. The fact that 33% of the children in this study interpreted the purportedly universal figures as "definitely a man," particularly in coed events, strongly suggests the proposed pictograms are culturally biased. (TS)
Gender Bias and Children’s Perceptions of the 1996 Olympic Games Pictograms

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Introduction
Opportunities for girls and women to participate in sport have increased markedly in the past 20 years. Since the passage of Title IX in 1972, girls and women in the United States have poured out of the bleachers onto the playing fields in unprecedented numbers.

Continued progress needs to be made, given the fact that only 34% of high-school athletes and 33% of college athletes are women and, on the international scene, 39.8% of Olympic athletes in Barcelona were women.

In 1992, 219 American female competitors brought home from Barcelona 90 medals, for a 41% yield, compared to 25% for their male counterparts (102 medals by 402 competitors) (USOC, 1994). Women’s figure skating and gymnastics now capture huge shares of television viewership, and women are the most frequent participants in the seven leading fitness activities (National Sporting Goods Association, 1992).

Despite these gains, gender biases continue to prevent girls and women from realizing their athletic potential. Key gender biases in sport include the beliefs or preconceived opinions that sports are solely or mainly for men, that boys are better at sports than girls, that women athletes are “masculine” and that males are entitled to more athletic opportunities than females.

Children’s interest and involvement in sport do not occur randomly or because of biological urges; rather, they are intricately and intrinsically tied to social learning. Stereotypical messages that sports are mainly “male” pursuits or that men’s athletic skills are more highly valued than women’s seep into girls’ and boys’ visions of what is “normal,” possible or desirable for them, thus influencing their developing identities and choices (Thorne, 1994; Deaux & Lewis, 1984; Greendorfer, 1978, 1987, 1993).

Gender bias may be communicated by toys, games, books, television, films and newspapers. In sport media, for example, bias has been evident in the exclusion and trivialization of women athletes. Duncan and Messner (1994) found that 94% of local television news sports coverage dealt with men’s sports, while newspaper stories on men’s sports outnumbered those on women’s at a rate of 23 to 1.

Broadcasters can trivialize women athletes by giving them less commentary than men athletes, calling them “girls,” focusing on physical attractiveness or presenting images that evoke feminine stereotypes (e.g., pink logos) rather than athleticism (Cohen, 1993; MacNeil, 1994). The strength, determination and achievements of women athletes are lost amid pervasive portrayals of competent and strong male athletes and fluffy, stereotypical treatments of female athletes.

In July 1994, the Atlanta Committee for the 1996 Olympic Games (ACOG) introduced the official pictograms for the 1996 Centennial Olympic Games. These black-and-white silhouettes of 31 athletic events were portrayed to represent both women and men performers.

In order to test that assertion, a study was conducted to determine if the Olympic pictograms were perceived to be gender neutral or gender biased by overrepresentation of male figures to symbolize athletic events. It was hypothesized that if the proposed pictograms were indeed gender neutral (i.e., represent either men or women) in content and form, then children would be just as likely to identify the figures as either men or women, especially for events in which both sexes compete. We reasoned that if children perceive the pictograms as predominately male figures, then it would suggest that women are being left out of the images proposed by ACOG. In effect, women athletes would be disadvantaged or discriminated against in the promotion and coverage for the upcoming Centennial Olympic Games.

Methods
Participants were selected using a multi-stage purposive sampling that resulted in recruiting 779 boys and girls enrolled in third through seventh grades in one elementary or middle school in each of seven states: California, Colorado, Indiana, Pennsylvania, Oregon, South Dakota and Virginia. The sample included one urban school system, three medium-sized systems (suburban) and three rural school systems.

A questionnaire packet was developed in order to investigate how children perceived the gender of the athletes depicted in the ACOG pictograms. Each packet contained the 31 pictograms released by USOC (see page 21), one pictogram per page, randomly ordered. A cover page asked for demographic information, including school grade, age, gender and racial or ethnic background.

Each child was asked to circle a choice that completed an unfinished statement that appeared below each figure to elicit the child’s perception of the gender of each pictogram. The following three response choices were randomly ordered on each of the 31 pictograms throughout the packets:

This person is...
a. either a man or woman
b. definitely a man
c. definitely a woman

The study was presented to teachers as a learning experience for children to discuss the Olympic Games and sports. Enough packets were mailed to each designated teacher to supply every child in one intact classroom, for each grade (three through seven), at the designated school. The
questionnaires were administered during a class period by the classroom teacher or physical education teacher. The following standardized instructions were read by teachers to participating students before opening the packets:

*The pictures in this packet represent sports that are popular. We are interested in your impressions of the individuals pictured in each illustration. After you glance at the picture, please indicate your answer to the question at the bottom of the page.*

The time required for a child to review all 31 pictograms ranged from 10 to 15 minutes. Discussion of the pictures and the concept of the Olympic Games occurred only after all children had completed the questionnaire.

Basic descriptive statistics were generated to identify patterns and make subgroup comparisons. Statistical tests (chi-squares) were used to determine whether significant differences existed between the responses of boys and girls; none were found. The results of statistical tests reported in this study are significant at the p < .05 level.

**Results**

The children (N=779) ranged between seven and 14 years of age, with a median age of 10.5 years. The sample consisted of 372 girls (48%) and 403 boys (52%); 153 (19.6%) third graders, 171 (22%) fourth graders, 165 (21.2%) fifth graders, 183 (23.5%) sixth graders and 107 (13.7%) seventh graders.

Coed Olympic Events. Twenty-two of the proposed pictograms represented Olympic events in which competitions are held for both men and women (coed). Among the coed events are archery, badminton, basketball, canoeing or kayaking, cycling, diving, equestrian, fencing, gymnastics, swimming, tennis and volleyball. If the proposed pictograms representing coed events were truly gender neutral, one would expect that almost all of the children (perhaps 75% or more) would have labeled them “either a man or a woman.”

![Figure 1](image)

**Figure 1** Percentage of Children in Grades Three through Seven Who Identified the Coed Event Pictograms as “Either a Man or Woman,” “Definitely a Man” or “Definitely a Woman”

- Man: 29%
-either gender: 58%
-Woman: 13%

In only 16 of the 22 sports did a majority of the children (>50%) see the images as gender neutral (“either a man or women”). Five of the coed pictograms were identified as “definitely a man” (archery, fencing, hockey, judo and shooting), and only one of the coed pictograms (gymnastics) as “definitely a woman.”

All-Male Events. Six pictograms portrayed Olympic events in which only men compete. The all-male events are baseball, boxing, modern pentathlon, water polo and weight lifting and wrestling.

![Figure 2](image)

**Figure 2** Percentage of Children in Grades Three through Seven Who Identified the All-Male Event Pictograms as “Either a Man or Woman,” “Definitely a Man” or “Definitely a Woman”

- Man: 52%
-Woman: 7%
- Either gender: 41%

Figure 2 shows that more than half (52%) of the children (n=405) perceived these pictograms as “definitely a man,” while 41% of the children (n=319) interpreted these figures as being “either a man or a woman” and 7% (n=55) of the children labeled these images “definitely a woman.”

All-Female Events. Three pictograms represented Olympic events in which only women compete; these are rhythmic gymnastics, softball and synchronized swimming.

![Figure 3](image)

**Figure 3** Percentage of Children in Grades Three through Seven Who Identified the All-Female Event Pictograms as “Either a Man or Woman,” “Definitely a Man” or “Definitely a Woman”

- Woman: 35%
-Man: 19%
- Either gender: 46%

As Figure 3 illustrates, 46% (n=366) labeled the figures “either a man or a woman,” while 19% (n=148) held that they were “definitely a man.” Only about a third
(35%, n=273) of the children perceived the figures representing all-female events as "definitely a woman."

Discussion and Recommendations

Perception is a dynamic process in which children bring previously learned expectations to bear on interpreting what enters their visual fields. It is likely that a number of pre-existing expectations about sport and gender influenced the interpretations of the pictograms by these seven- to 14-year-olds. For example, it may be that some children assumed that badminton, gymnastics and softball are for girls and women, while such activities as judo and shooting are for boys and men.

At the same time, however, the visual content of images may convey information about gender differences or evoke stereotypical expectations in children's minds. In North American culture, for example, a clenched fist and exaggerated upper body commonly symbolize masculinity, whereas a downturned, extended hand with outstretched fingers and a more ample lower body are considered emblematic of femininity (Messner & Sabo, 1995). Such culturally specific visual cues, therefore, can act as triggers or cues that shape children's perceptions.

The fact that so many of the children (33%) in this study interpreted the purportedly universal figures as "definitely a man," particularly in coed events, strongly suggests that the proposed pictograms are culturally biased. It is therefore possible that the Olympic pictograms will foster and perpetuate the development of stereotypical beliefs in children that sports are more appropriate for men and boys than women and girls. After all, 86% of the children included a man in their perceptions (responses = either a man + definitely a man) while only 67% included a woman (responses = either a woman + definitely a woman).

The major findings in the study are that children perceived the Olympic pictograms as conveying a gender bias that visually overrepresented male athletes (86%) and underrepresented women athletes (67%). There were clearcut variations in the children's perceptions of the pictograms: 53% of the children saw the 31 pictograms as representing "either a man or woman," 33% labeled them men and 14% saw them as women.

For the 22 coed events, 29% of the children believed the pictures were men, while 13% considered them as women and 58% thought they were "either a man or woman." For the six all-male events (in which, outside of the Olympic Games, both men and women often compete), 52% of the children saw the figures as "definitely a man," while 41% perceived them as "either a man or woman" and 7% labeled the figures "definitely a woman." For the three all-female events, 35% of the children thought the figures were women, yet more than one in every four children (25%) perceived them as men, and 46% saw them as "either a man or woman." In addition, the fact that no statistically significant differences were found for boys and girls suggests that this is a pervasive problem of bias.

These results clearly suggest that the proposed pictograms fall short of representing "universal human forms." To the extent that women athletes are being left out of the Olympic pictogram program, they are being symbolically reduced to second-class citizens in Olympic sports. The gender biases built into the Olympic pictograms may inflate the visual presence of male athletes and deflate the significance of women athletes.

Programs such as the pictogram promotion and coverage of the upcoming Centennial Olympic Games seem to perpetuate gender bias at a time when cultural assumptions about women's athletic abilities have become so positive and encouraging. Thirty years ago, for example, it was assumed that women did not possess the stamina to run a marathon. After two decades of lobbying, the women's marathon event was included in the 1984 Olympic Games and Joan Benoit, a U.S. athlete, won the gold medal.

Today, unprecedented numbers of girls and women are doing and dreaming athletics. Boys and men have begun to support them, cheer them on and admire their accomplishments. If young girls and women are to be encouraged to participate, there must be visible images and role models to encourage and support them. Either clearly female depictions should be used or alternative icons such as sport equipment should be employed to reduce biasing perceptions. To the extent that the Olympic pictogram program leaves women out of the picture, women's deeds and dreams will be dampened and men's perceptions of their ability will be distorted.

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References


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