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Bias in the Portrayal of Sex and Race in Photographs from Undergraduate Sport Psychology Texts

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ABSTRACT

Although psychology has recognized the importance of considering gender and race/ethnicity in teaching and research, the world of sport has made slower progress. In this study, photographs from undergraduate sport psychology textbooks were analyzed for gender and visible minority status of the individuals depicted. Results indicated that female and minority athletes were somewhat underrepresented compared to actual participation rates in sport. However, coaches and officials were portrayed almost exclusively as White men and as such represent a limited vision of leadership positions in sport. Although textbooks often discuss such bias, they may also be contributing to the problem.

Introduction

Along with many other disciplines, psychology has recognized the importance of fairly representing individual differences such as gender and race in teaching and research. As in many subcultures, stereotypes exist in sport about who participates and what activities are appropriate for members of identifiable groups. The mass media has been consistently identified as one important contributor to the formation of these schemas, with evidence that female athletes are

underrepresented in sports coverage on TV, newspapers, and magazines (e.g., Higgs, Weiller & Martin, 2003; Theberge, 1991). When they are present, women are often portrayed in traditional ways and their accomplishments are trivialized (Jones, Murrell & Jackson, 1999). Similarly, research shows that athletes of color are underrepresented in terms of the number and length of feature articles about them (Lumpkin & Williams, 1991), and the content of the articles is often associated with skin color. For example, Black athletes are often described as being physically superior whereas white athletes are viewed as hard working and intelligent (Murrell & Curtis, 1994). These portrayals may have adverse effects on individuals who consume such media by limiting participation (Koivula, 1995; Matteo, 1986) and performance (Stone, Lynch, Sjomeling & Darley, 1999).

Although the mass media is often identified as the purveyor of such bias, material from our own psychology courses may be biased. The medium most closely and frequently associated with the classroom is, of course, the textbook, and some of the most accessible sources of messages in these textbooks are the photographs that accompany the text. Until now, there has been no systematic study of information presented about identifiable groups of athletes to determine if it is biased. Although a handful of studies have considered issues of the presentation of diversity in psychology textbooks, they have been mainly focused on introductory psychology (e.g., Etaugh, Cohen, Cummings-Hill, Massey & Detweiler, 1999; Hogben & Waterman, 1997), and we believe it is valuable to consider more specialized courses in the discipline as well. It is important to note that the presence of stereotyping and its effects is commonly covered in psychology of sport courses at the undergraduate level. Therefore, the aim of this study was to determine if textbooks used in courses on sport psychology may be countering, or contributing to, the problem of gender and racial stereotyping by considering both the quality and quantity of images presented.

Method

Materials

A current list of the 16 most frequently used psychology of sport textbooks in North American undergraduate classes was obtained from a large publisher. The publication dates of these texts ranged from 1997 to 2004. All photos in these books were analyzed for their portrayal of adults in roles either as active participants (i.e., athletes) or those in authority positions in sport (i.e., coaches, athletic trainers, and officials). Photographs of other subjects (e.g., researchers, spectators, children, inanimate objects) and cartoons were excluded. This resulted in a population of 396 photographs for the analysis.

Ratings

In each photograph, up to five identifiable persons were counted. Sex and race/ethnicity was recorded for each category of “athletes” and “officials” based on physical characteristics, and/or information in the caption of the photograph. As adapted from methods used in the U.S. government census, race/ethnicity was categorized into broad categories of Asian, Black, Hispanic, and White. Other categories were not represented in the photos and were dropped. The sport portrayed in the photograph was recorded where it could be identified.

Comparators

Where possible, the proportions of groups appearing in the textbooks were compared with actual participation rates in sport to determine how accurately these textbook portrayals represented reality. This comparison is challenging, as data on gender and racial diversity of various spheres of sport are generally not available. However, two reasonable comparators were available and were utilized. First, many of the images in the text books were of athletes at an intercollegiate level or higher. As such, we compared the racial and gender diversity of these images to available data on the racial and gender make up of athletes and coaches/officials at the NCAA (National Collegiate Athletic Association) and professional levels as tallied by the Institute for Diversity and Ethics in Sport, at the University of Central Florida (2003). As a secondary comparator, and to enable comparison to non-elite athletes, we also compared text representations of gender and race to that expected in the population as a whole, as indicated by the US Census Bureau (2001). Non-parametric inferential statistics are performed where possible.

Results

To establish interrater reliability, a trained research assistant independently rated a randomly chosen set of 40 photographs (approximately 10%) from the total sample originally rated by the first author. The total number of agreements between these two raters was divided by the number of agreements plus disagreements, and multiplied by 100. This calculation resulted in an interrater reliability of 91%. Disagreements were resolved through discussion.

Athletes

Table 1 contains the frequency distribution of athletes by sex and race in the textbook photos.

Table 1. Frequencies of Sex and Race/Ethnicity Categories for Athletes in Textbook Photographs.

Sex \ Race	Asian	Black	Hispanic	White	Unknown	Total
Female	6	41	0	192	1	240
Male	4	73	3	209	8	297
Unknown	0	0	0	7	8	15
Total	10	114	3	408	17	552

Sex. In all, 552 individual athletes could be identified. In 15 cases, sex could not be determined, leaving a total of 537 cases for consideration. Of these cases, 240 (44.7%) were female, 297 (55.3%) were male. A chi-square goodness-of-fit test indicates that these values are

significantly disproportionate ($X^2= 6.05, df=1, p < .05$), with men represented more often in these photographs than women. Given that Title IX (for an overview, see Harvard Law Review, 1997) mandates that US schools receiving federal funding must devote equal opportunities to participate to each sex, 50% is a reasonable expected frequency across sexes in the previous analysis. However, in reality, only about 43% of sport participation opportunities are currently available to women in NCAA I schools (Institute for Diversity and Ethics in Sport, 2003). When comparing portrayed frequencies of participation by sex with this expected frequency, the inferential analysis shows that the textbooks closely approximate reality ($X^2= .615, df=1, p = n.s.$).

There were also consistent patterns in the types of sports that were portrayed as being played by men or women (see Koivula, 1995; 2001). For example, all athletes in photographs of wrestling, football, and baseball were men. All athletes portrayed in gymnastics, volleyball, and softball were women. The “equal opportunity” sports included track & field, soccer, tennis and basketball where approximately equivalent numbers of both sexes were portrayed.

Race. Out of a total of 535 athletes whose race/ethnicity could be determined, 408 White athletes were shown (76.3%). In this respect, the photos reflect census data (U.S. Census Bureau, 2001), which shows 75% of U.S. citizens identify as White ($X^2= .045, df=1, p = n.s.$). However, the proportion of white athletes involved in NCAA sport is 64.7%, and as such, these text book photos would not accurately represent the real numbers of university athletes of color ($X^2= 31.26, df=1, p = <.001$). As a final note, these text books portray athletes of color much less frequently that would be expected from the racial composition of the majority of the main professional sports leagues in North America (with the exception of ice hockey). The proportion of “visible minority” athletes in professional sport in North American ranges from a 40% in Major League Soccer and Major League Baseball to a high of 78% in the National Basketball Association (NBA) (Institute for Diversity and Ethics in Sport, 2003).

Coaches / Officials / Trainers

Table 2 contains the frequency distribution of coaches / officials / trainers by sex and race in the textbook photos.

Table 2. Frequencies of Sex and Race/Ethnicity Categories for Coaches / Officials in Textbook Photographs.

Sex \ Race	Asian	Black	Hispanic	White	Unknown	Total
Female	0	1	0	23	0	24
Male	0	4	0	93	2	99
Unknown	0	0	0	0	0	0
Total	0	5	0	116	2	123

Sex. When considering coaches, trainers and officials, photos of men outnumbered photos of women in these textbooks 99 to 24. In other words, only 21% of individuals in positions of authority were women. If we consider 50% as ‘equality’, then women are clearly underrepresented ($X^2 = 45.7$, $df = 1$, $p < .001$). However, if we consider *actual* numbers of women in positions of authority, a somewhat less clear picture emerges. In university sport, at the NCCA Division I level, women coach between 42% (head coaches) and 49% (assistant coaches) of women’s teams, and are assistant coaches for 7% of men’s teams. No woman is the head coach of any men’s team. Professionally, women coach 41-55% of Women’s National Basketball Association (WNBA) teams, but none of the (men’s) NBA teams. The proportions of female trainers and officials are similar: 50% for women’s teams and virtually none for men’s teams. The determination of a reasonable ‘expected frequency’ for this analysis may be open to debate. However, if we take the average proportion of women who coach/officiate women’s teams (approximately 50%) and women who coach/officiate men’s teams (almost none), we might reasonably expect 25% of these photos to be of women. This would indicate that the photos are not far from reality ($X^2 = 1.97$, $df = 1$, $p = n.s.$). We would conclude then, that the portrayals of coaches and officials in sports psychology textbooks seem to be significantly biased toward men being represented as the norm. However, this portrayal is not out of line with the situation at national and professional levels of competition. We have no comparators for gender representation in positions of authority in less elite-levels of sport.

Race. Of the 121 cases where race/ethnicity of coaches and officials could be determined, 116 were White, representing 95.9% of the total. If we compare this to census data (75% White), we would expect to see many more non-whites represented ($X^2 = 28.11$, $df = 1$, $p < .001$). Comparing this to sport data, about 90% of head coaches, and about 80% of assistant coaches in the NCAA, are white. If we estimate 85% as the expected proportion of White coaches in college ranks, the analysis would suggest that the text books are still out of step with reality ($X^2 = 11.21$, $df = 1$, $p < .001$). For professional sports, the proportion of White managers or head coaches is varied, ranging from 94% for the National Football League, to 48% for the NBA.

Discussion

Ironically, although gender and racial bias is often discussed in the literature on sport psychology, images from text books in the field are often not setting a positive example in representing diversity. One finding of this study was that images in the average sports psychology textbook portray men participating in sport somewhat more frequently than women. Further, men are likely to be portrayed in traditionally 'masculine' sports whereas women were more often portrayed in sports emphasizing beauty and grace (Koivula, 2001). Although there is remarkably little in the literature about the portrayal of female coaches in sport, the image being reflected to students of the psychology of sport is that female coaches are remarkably rare. This rather unfortunately coincides with the paucity of women portrayed in positions of leadership and authority outside of sport.

The frequency at which athletes of color appear in textbooks seems to fairly accurately represent the proportion of visible minorities living in the US (where these books are being published). However, given that professional sport, as well as the NCAA may have higher proportions of athletes of color participating than in the general population, these textbooks appear to be, in fact, under representing racial diversity. When considering leadership positions, there is significant over representation of pictures of White men in these roles. Part of this overrepresentation may be a cause, or possibly an effect, of stereotypic beliefs about athletes based on race. For example, Black athletes are often seen as physically superior to White athletes, but White athletes are seen as being more thoughtful and emotionally controlled -- the qualities presumably desirable in a coach (Johnson, Hallinan & Westerfield, 1999).

This study was the first to demonstrate the degree of misrepresentation of traditionally marginalized groups in psychology of sports texts. Although not considered in the current study, it would be interesting to see if similar biases exist in other sports-themed texts, such as those from sociology of sport, physical education and recreation, sports management and sports medicine. There is abundant theoretical and empirical support to suggest that individuals form cognitive schemas about race and gender based on exposure to various forms of media (e.g., Fiske & Taylor, 1991; Knight & Guiliano, 2002). Therefore, repeated viewing of images such as the ones considered here may lead students to form inaccurate conclusions of the appropriateness of their participation in sport, and discourage them from taking on leadership positions. Given that university text books may be seen to be more authoritative sources of information about the world than more popular media, this is not an issue to be taken lightly. Educators should not only cover causes and consequences of discrimination as part of their courses, but also incorporate additional representations of traditionally marginalized groups in an effort to level the playing field. It is also something that authors and publishers of textbooks should bear in mind for future editions.

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