

You Don't Look Like an Athlete: The Effects of Feminine Appearance on Audience Perceptions of Female Athletes and Women's Sports

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Guided by gender schema theory, the researchers explored gender stereotypes of female athletes through a 2x2 experimental design. Participants, 267 undergraduate students from a large southern university, read one of four versions of an online news article (a short news story with a photo) in which female athlete appearance (masculine/feminine) and the type of sport played (masculine/feminine) were varied. Male participants reported lower interest in the article and the sport when female athlete appearance is incongruent with stereotypical appearance for her sport. Men were more interested in an article about volleyball (a feminine sport) and volleyball as a sport when a feminine female athlete – rather than one with more masculine appearance – is pictured. In contrast, women reported higher interest in an article and the featured sport, regardless of sport type, when a more masculine female athlete was pictured. Results suggest that men respond more favorably to female athletes who conform to gender stereotypes for their sport, whereas women favor power in female athletes. Sex-typing of the sports, however, remains firmly entrenched in audience attitudes even immediately after being exposed to an image incongruent with gender stereotypes for that sport. These results shed light on how athlete appearance relates to audience interest in media messages and perceptions about sport.

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Gender schema theory suggests that individuals learn the differences between the classifications of male and female from society and then adjust their behaviors to meet these expectations (McVee, Dunsmore, & Gavelek, 2005). Sport is a major sector in society that depicts stereotypes of American culture (Bernstein, 2002), therefore gender schema theory has guided numerous researchers examining how audiences react to gender stereotypes presented in media messages (i.e., Duncan, 1990; Pederson, 2003; Vincent, 2003). Because media producers often match photographs and imagery to audience expectations and desires, visuals likely can attract readers but also promote gender stereotypes (Reichert, 2005). Likewise, society gender stereotypes particular sports, which the literature identifies as "sex-typing" (Hardin & Greer, 2009; Koivula, 2001). The stereotypes generate societal expectations about the femininity and masculinity of athletes participating in these sports.

This study seeks to further what is known about mediated visual depictions of gender stereotypes and sex-typing of sport through an experimental study. The study explores how audiences respond to a photograph of a highly feminine female athlete participating in a masculine-typed sport (basketball) or a feminine-typed sport (volleyball), compared to an image of a highly masculine female athlete participating in the same sports.

Gender Schema Theory and Sport

Society forms expectations of individuals and situational outcomes through stereotypes and norms. If the norm does not occur, individuals may become uneasy. Such is the explanation for schema theory. Schema theory explains how thought processes relate to life in society (McVee, et al., 2005). Individuals make sense of society by developing expectations or schemas. They then internally and externally attempt to fit into the societal norm and base stereotypes on such schemas (Campbell, Shirley, & Candy, 2004).

Researchers have applied this concept to gender, creating gender schema theory. Bem (1981) argued that individuals are predisposed to associate traits, objects, behaviors, and characteristics based on gender schemas. Levy (1988) divided gender schemas into two types: those that rely upon preexisting knowledge and those that examine how such knowledge is processed. Individuals are inclined to process information based on maleness or femaleness, whereas behaviors are categorized as gender appropriate or gender inappropriate (Bem; Campbell, et al., 2004; Freedman, 1992a). Researchers define the categorization of gender behaviors as either sex-typing or gender-typing, terms that have been used interchangeably (Hardin & Greer, 2009; Hudak, 1993; Koivula, 2001). The act of sex-typing leads to the formation of gender stereotypes (Hudak; Patterson, 2003). Furthermore, sex-typed individuals are more likely to process and categorize information in terms of gender schemas and choose to participate in gender-appropriate behaviors (Anderson & Bem, 1981; Bem).

Longitudinal research has found that even toddlers increasingly follow gender-expected norms as they grow (Campbell, et al, 2004). Children participate in gender-appropriate behavior based on toy collection, personality formation, and role play. Children are motivated to be similar to other children of the same gender and have an increased interest in gender-appropriate activities (Martin & Ruble, 2004). This continues in adults, who categorize some adult career choices by gendered traits that are perceived either as gender appropriate or gender inappropriate (Freedman, 1992b). For example, nursing and teaching are viewed as gender-appropriate careers for women because of the nurturing traits associated with these jobs. News preferences also mirror gender schemas. For example, women seek news topics of the social and interpersonal nature, while men seek topics of achievement and performance (Knobloch-Westerwick, 2007).

Sports mirror gender roles in society (Adams, Schmitke, & Franklin, 2005). Societal issues, including economics, equality, the formation of role models, and group cohesion, play out in the sports arena, as do stereotypes of age, gender, and race (Patterson, 2003). Because female athletes often sweat, play aggressively, wear athletic wardrobes, develop muscles, and have masculine builds, they do not fit the expectations (or schemas) of society (Krane, Choi, Baird, Aimar, & Kauer, 2004). Instead, society stereotypes these "masculine" female athletes – those with muscles and masculine builds – and those who play masculine sports as mannish lesbians (Harrison & Lynch, 2005; Knight & Giuliano, 2003). Men value muscularity, strength, endurance, and sports competence in their mental image of a male athlete; in contrast, women value a beautiful, slender, and feminine appearance in female athletes (Klomsten, Marsh, & Skaalvik, 2005). Such stereotypes are based on gender schematic assumptions in society and are directly related to the appearance of the athlete and the stereotypes given to gender-appropriate sports.

Sport Typing and Media Stereotypes

Media representations in line with gender schemas reinforce gender stereotypes. Media represent the societal gender schemas by underrepresentation of female athletes. Furthermore, when female athletes do receive media attention, their femininity receives more attention than their athletic ability (Fink & Kensicki, 2002). An analysis of the NCAA Final Four basketball tournament found that women were evaluated on their appearance while men were evaluated on their athletic ability (Billings, Halone & Denham, 2002). Audiences perceive female athletes they view in the media to be smaller, thinner, and more petite than they are (Martin & Martin, 1995).

Typing sports as either gender appropriate or gender inappropriate has effects on media commentary, perceptions of athlete appearance, and media coverage. In photography, mascu-

line stereotypes are more common in images depicting women participating in masculine sports, whereas feminine stereotypes were present in images depicting women in feminine sports (Duke & Greer, 2008). Commentary about female athletes has been linked not only on the appearance of the athlete but also to the type of sport being played (Billings, et al., 2002). Media coverage of female athletics also increases if the sport portrayed is gender appropriate (Pederson 2003).

In testing attitudes among college students raised with Title IX, Hardin and Greer (2009) found that young adult viewers still strongly sex-types sports. Men and women alike clearly differentiated between feminine sports such as volleyball and gymnastics and masculine sports such as basketball and rugby. Koivula (2001) identified characteristics of feminine and masculine sports: masculine sports require danger, team spirit, speed, commercialism, and strength while female sports involve aesthetics, advanced skills, and cognition.

In published photographs, "gender-appropriate" and "gender-inappropriate" sports are portrayed differently. In a content analysis of newspaper coverage of female athletes from the 1996 Olympic Games, Vincent (2003) found that women in gender-appropriate sports were more likely to be posed in photographs, making athletes appear more feminine. In gender-inappropriate sports, the photography tended to highlight athleticism, Vincent argues, because a posed photograph likely would emphasize the incompatibility of the athlete compared to the sport. Duke and Greer (2008) identified visual stereotypes of female athletes participating in masculine sports as power, muscularity, and masculine features among others. Feminine stereotypes were depicted through sexy clothing, feminine features, a sexual gaze, and focus on the thin ideal. Further, an analysis of magazine photography of female athletes participating in the 1984 and 1988 Olympic Games identified frequent feminine poses and a clear intention to feminize the athlete with makeup, wardrobe, and hair (Duncan, 1990).

In addition to appearance, athletes are clearly assigned stereotypes based on the masculinity and/or femininity of the sport itself, and of other athletes who participate in the sport. Kane and Snyder (1989) argued that sex-typing impairs women's athletics by limiting the sports seen as appropriate for female athletes. Survey research of children aged 8 to 10 found that some shun gender-inappropriate sports out of fear of being stigmatized by society and their peers (Schmalz, 2008).

Another common stereotype in sport is that women are not credible as athletes. This is reinforced by the underrepresentation of female athletes in media coverage and by sports commentators' attention to women's femininity rather than athletic ability (Crossman, Vincent, & Speed, 2007; Fink & Kensicki, 2002; Salwin & Wood, 1994). Mediated portrayals of female athletes focus on their personal lives, physical appearance, and other non-athletic themes,

indicating that their athleticism is unimportant or unexciting (Jollimore, 2002). In televised sports, female athletes often are depicted as cooperating, rather than competing (Daddario, 1994).

Readers and viewers base expected roles of female athletes from what they see in the media and society (Greendorfer & Rubinson, 1997). Role expectations have been found in point-of-purchase advertising, in which female athletes were shown in leisure/recreational sports, were portrayed in individual (not competitive) activities, and were underrepresented compared to men (Cuneen & Claussen, 1999).

Appearance and Audience Interest

The effect of physical appearance has been studied in relation to gender schemas in the workplace, in media images, in criminal investigations, and more. For example, men who thought they fit typical male schematic appearances believed they were more likely to receive compensatory workplace benefits than men who thought they didn't fit schematic appearances (Alter & Ceta, 2005). In a study of sexual harassment complaints, more attractive complainants were rated by superiors as having more valid claims than less attractive complainants (Madera, Podratz, King, & Hebl, 2007). In another study, women presenting negative information were perceived less favorably than men (Swim, Borgida, Maruyama, & Myers, 1989).

Differences in attitude based on gender schematic appearance have also been found in media research. Chang and Hitchon (2004) found that audiences expected more positive political ads from the a more feminine female candidate. Visual depictions of women in gender schematic roles have been shown to increase audience appeal (Rosenspan, 1998). Reichert (2005) found that sexual attractiveness of female models on magazine covers led to sexual arousal and an increased interest in those magazines for both men and women.

Media images of thin and attractive individuals have been found to increase cognition through comparisons of the body image in the media to the consumer's own self-perceived body image (Engeln-Maddox, 2005). Chang (2006) found an additional link between congruency of appearance of the media consumer and the model in an advertisement. Media consumers with high levels of perceived masculinity or femininity were more likely to align themselves with a product featuring a model with a congruent image in their advertisement. Another study found that the effects of body image depended on the congruency between the attractiveness of the media consumer and the model in the media image. Specifically, attractive, female media consumers only experienced body dissatisfaction when presented with images of equally or more attractive models (Trampe, Stapel, & Siero, 2007).

Audience arousal also varies by the gender of the athlete and the viewer. Angelini (2008b) found that men's televised sport is more arousing than women's sport for both young

men and young women. Furthermore, women felt more positive and aroused when watching broadcasts of female athletes breaking gender norms in sport (Angelini, 2008a). These two studies suggest that when women watch female athletes excel in a masculine sport, they are more engaged. In contrast, beautiful, attractive, and feminine female athletes are arguably more appealing to men, who are recognized as the target audience for most sporting events (Binks, 2004). Therefore, researchers argue that it is easier for women than men to cross gender norms, as feminine male athletes likely repulse a male audience (McCabe, 2007). Sexuality and attractiveness in sport also have an attention-getting factor (Brooks, 2001), so that more attractive female athletes can grab audience attention. For example, attractive athletes are seen as better endorsers and more likely to sell tickets to a sporting event (Cunningham, Fink, & Kenix, 2008).

Research Questions

The appearance of female athletes has become a key variable in studies that have examined media coverage, media commentary, athletic endorsements, photography, body image, sex-typing, and the shaping of public opinion (Bernstein, 2002; Billings, et al., 2002; Duncan, 1990; Salwin & Wood, 1994). Bernstein reflected on Anna Kournikova's ample media coverage as compared to less attractive athletes, suggesting that more attractive (and feminine) female athletes receive more coverage, regardless of ability. The trend to feminize and/or sexualize female athletes to increase audience interest stems from the assumption that female athletes are not as athletic as their male counterparts, which in turn has the ability to shape public opinion (Eccles & Harrold, 1991; Knight & Giuliano, 2001). Reshaping existing female sport stereotypes could result in elevated audience interest in both masculine and feminine female sports and athletes. To test how audience interest in a sport and in media messages about that sport are related to femininity of appearance of female athletes, the following research questions are posed:

RQ 1: Does increased feminine appearance of a female athlete in a sports photograph increase audience interest in an accompanying news story?

RQ 2: Does increased feminine appearance of a female athlete in a sports photograph increase audience interest in the sport the athlete is playing?

RQ 3: Does seeing a non-stereotypical athlete depicted as playing a sport decrease audience gender typing of that sport?

For each of these questions, researchers examined whether audience interest varied by the type of sport depicted (masculine or feminine) and whether male and female audience members reacted differently to these images.

Method

Participants

Participants were undergraduate students from a large southern university, consistent with previous studies of this type (Engeln-Maddox, 2005; Reichert, 2005). Of 347 students recruited from three introductory communication classes, 267 participants completed the study, a 76.9% completion rate. Almost all of the participants were in the traditional college age range (18 to 24), and 91% were between 18 and 21 ($m = 19.86$, $sd = 2.26$). Most participants were women ($n = 209$, 78.3%), a higher percentage than the 68.7% women in the participating class sections.¹ This could indicate that women were more likely to complete the study, and results should be viewed with that in mind. Most ($n = 230$, 86.1%) identified themselves as white, while 24 (9.0%) identified as African-American and 6 (2.2%) as Latino or Hispanic.² To ensure internal validity, these demographics were compared across groups. The groups were equivalent on gender, ethnicity, and level of sports participation,³ providing support that the results are attributable to the treatment effects, not the measured extraneous variables.

Materials

Research participants were exposed to one of four conditions. Each condition contained a short news story and saw and accompanying photograph. The story, exactly 200 words, was virtually identical across the four conditions. It explained that the athlete pictured, a star player for her team at the university, was named the top defensive player in her sport by the regional athletic conference. The only variation was that either "basketball" or "volleyball" was used in the headline and in the text.⁴ The first ($n = 90$; 18 men, 72 women) and second ($n = 57$; 13 men, 44 women) groups saw a photograph of either a masculine or feminine athlete participating in a masculine sport (women's basketball). The third ($n = 58$; 12 men, 46 women) and fourth ($n = 62$; 16 men, 46 women) groups saw a photograph of either a masculine or feminine athlete participating in a feminine sport (women's volleyball).⁵

Masculinity and femininity in athlete appearance was manipulated through a single photograph accompanying the story. Using definitions from previous studies (Duke & Greer, 2008; Duncan, 1990; Koivula, 2001), two undergraduate students not in the participant pool found online photographs of athletes in non-sport specific settings. Feminine, female athletes were thin, in sexual clothing, in a sexualized pose with a feminine face, and light physically toned build. Masculine female athletes were those average to larger in size, displaying power, wearing athletic clothing, with a masculine face, and a high degree of muscular tone. This resulted in 12 photographs, from which the researchers selected three feminine and three masculine images for pretesting. Next, 49 undergraduate students in communications classes

at a nearby state university rated the perceived masculinity and femininity of the athletes in the six photographs allowing researchers to select one as the most masculine and one as the most feminine.

Sex-typing of the sport was manipulated by selecting sports that have been identified in previous research as being either highly feminine or highly masculine (Hardin & Greer, 2009; Koivula, 2001). In previous studies, basketball has been rated by both men and women as highly masculine, although men often rate it as more masculine than women (Hardin & Greer). Additionally, volleyball, one of the top-rated women's sports in the summer Olympic Games has been characterized as highly feminine, grouping with gymnastics and figure skating. To ensure that participants attuned to the sport, the sport was mentioned in the headline, in a photo cutline, and twice in the story. Participants also were asked an open-ended question immediately after reading the story to identify the sport the athlete played and only one participant incorrectly answered this question.

Procedure

After approval from the university's Institutional Review Board, students were recruited via e-mail and were offered extra credit for their participation. A 2 (feminine or masculine athlete appearance) x 2 (feminine or masculine typed sport) experimental design was used to test the questions. Random assignment to group was done prior to the recruiting e-mail, with each class roll divided randomly by assigning a number to each student and using an online random number generator. Each group received a different e-mail link to its assigned story/photograph combination embedded in an online survey. The questionnaire was identical across conditions except for the news story/photograph page, which contained the manipulated treatments.

Measurement

After seeing one of four news article/photograph combinations, participants completed the online survey, which measured interest in the article, interest in the sport, and sex-typing of the sport. Interest in the article was measured by a slightly modified version ("article" replaced the word "ad") of the item Emotional Quotient Scale (EQ) (Wells, 1964). The items in this scale (e.g., "This article is very appealing to me,") were measured on a 7-point Likert-type response format in which higher numbers represented more interest in the story. The 12 items used constituted a reliable scale ($\alpha = .84$) and were averaged to create a single score for interest in the story.

Interest in the sport was measured through a slightly modified 10-item version of the Revised Personal Involvement Inventory (RRPII) (McQuarrie & Munson, 1991). Participants indicated how strongly they agreed that the sport was "important," "dull," etc. a 5-point Likert-

type response format where higher numbers indicated greater interest. The scale was highly reliable ($\alpha = .90$), and thus the items were averaged creating an interest in the sport score.

Sex-typing of the portrayed sport was measured using a four-item scale developed by the researchers, based on stereotypes of female athletes identified by previous literature (Fink & Kinsicki, 2002; Harrison & Lynch, 2005; Krane et al., 2004). Questions included "Female athletes who participate in this sport tend to be 'butch,'" and "The sport typically requires the athlete to be very muscular." All questions were measured on 5-point, Likert-type response format with higher numbers representing higher ratings of masculinity. The four items produced a reliable scale ($\alpha = .70$), and were averaged to produce a sex-typing of the sport score.

Other variables measured on the questionnaire included gender of the participant and general demographic data (ethnicity and age). Finally, because previous studies have found heavy participation in sports to be associated with variation in attitudes about sex-typing (Hardin & Greer, 2009), the participants' level of participation in various sports over their lifetime was measured so that it could be controlled for as a covariate in analyses.

Results

Manipulation checks determined that participants attuned to the differences in femininity and masculinity of athletes and sport as intended. At the conclusion of the study, participants were asked to rate the appearance of the athlete in the photo and to rate the type of sport. For each question 1 was labeled "feminine" and 5 was labeled "masculine." Those who saw the masculine photo rated the female athlete as significantly more masculine than did those who saw the feminine athlete photo ($m = 3.40$ to $m = 2.27$), $t(256) = 11.16$, $p < .001$. Also, those in the basketball conditions rated the sport as being significantly more masculine than did those in the volleyball conditions ($m = 2.90$ to $m = 1.75$), $t(258) = 9.29$, $p < .001$.

After the checks, Multiple Analysis of Covariance (MANCOVA) was used to examine the effects of the manipulated independent variables (appearance of athlete, gender typing of the sport), the fixed factor of gender of respondent, and the covariate of sports participation.⁶ All three dependent variables were tested in one model.

The first question examined whether increased feminine appearance in the photograph was associated with an increased interest in the accompanying news story. Further, we examined whether this effect varied by type of sport played or participant gender. Overall, a significant model emerged for interest in the story, $\eta_p^2 = .081$. While no main effects for appearance of the female athlete or type of sport were found, a significant three-way interactive effect was found for the three fixed factors examined together $F(1, 264) = 4.02$, $p < .05$, $\eta_p^2 = .016$. Further,

a main effect emerged for participant gender $F = 6.15, p < .02, \eta_p^2 = .024$ and a two-way interaction was found for participant gender and appearance of the athlete $F = 4.76, p < .03, \eta_p^2 = .018$.

Table 1 shows that, overall, all male participants were less interested in the story than were female participants, as higher means indicate greater interest on the 7-point response format. Further, women viewing the masculine female athlete playing either sport were more interested in the story than women who saw the feminine athlete. However, the opposite was true for men. Men viewing the feminine athlete, regardless of sport, reported greater interest in the article than those viewing the masculine athlete in either sport.

The significant three-way interaction is shown in the middle of Table 1, where the means for masculine and feminine athlete are broken down by type of sport and participant gender. Women had less interest in the story when a feminine athlete was pictured, regardless of sport. But for men, appeal of the story was virtually identical in both basketball conditions. However, for volleyball, appeal was significantly lower when a masculine athlete was pictured with the story. Put another way, the men who viewed a volleyball player who didn't fit the ultra feminine stereotype had lower interest in the story than did men in any other condition. For men, a highly feminine athlete pictured next to a story increased its appeal, but only for a feminine sport. Even then, the depiction only brought the interest up to the overall level of the masculine sport.

The second question explored if feminine appearance of an athlete was linked to overall interest in the sport in which she participated. As with the first question, we explored whether this was related to the type of sport and participant gender, and again model was significant ($\eta_p^2 = .089$). While no main effect was found for the two manipulated independent variables or for participant gender, a significant three-way interaction emerged $F(1, 264) = 6.69, p < .02, \eta_p^2 = .025$.

As Table 2 shows, men who saw a masculine female athlete playing volleyball reported significantly lower interest in the sport than did those who saw a feminine volleyball player or a masculine basketball player. Men who saw a feminine basketball player also reported lower interest in that sport than men who saw a masculine basketball player. In other words, when the non-stereotypical athlete was shown representing a sport, men reported lower interest in that sport, at least immediately after exposure to a photograph and news story. Indeed, the highest mean shown in Table 2 is for men who viewed a feminine female athlete playing volleyball, a highly feminine sport. That congruence led to the greatest interest in the sport of all participants in the study. For women, in contrast, interest in the sport waned only when they saw a feminine woman playing volleyball, or the stereotypical image of an athlete for that sport. No main effect for gender or other two-way interactions emerged for this dependent variable.

Table 1. Means and Standard Deviations for Interest in the News Story by Condition and Participant Gender

	Men (<i>N</i> = 58)		Women (<i>N</i> = 209)	
	Mean	SD	Mean	SD
Overall interest in the story	3.81	1.05	4.04	0.88
Basketball conditions (masculine sport) combined	3.92	1.13	4.08	0.94
<i>Masculine athlete</i>	<i>3.96</i>	<i>1.09</i>	<i>4.12</i>	<i>0.90</i>
<i>Feminine athlete</i>	<i>3.87</i>	<i>1.22</i>	<i>4.03</i>	<i>0.86</i>
Volleyball conditions (feminine sport) combined	3.66	0.94	4.00	0.88
<i>Masculine athlete</i>	3.06	<i>0.63</i>	<i>4.14</i>	<i>0.90</i>
<i>Feminine athlete</i>	<i>3.96</i>	<i>0.94</i>	3.86	<i>0.84</i>
Masculine athlete conditions combined	3.70	1.06	4.13	0.90
Feminine athlete conditions combined	3.92	1.05	3.93	0.85

Note: Dependent variable measured on a 1-7 scale where 7 = highest interest in the news story. Model includes fixed factors of athlete appearance, sport type, and participant gender and a covariate of sport participation. Italics show the significant three-way interaction. Outlier by participant gender noted in bold.

The final question examined if participants seeing an athlete who broke gender stereotypes for a sport had at least a short-term shift in their perception of the types of athletes who play the sport. While a significant model emerged for sex-typing of the sport, $F(1, 264) = 6.25$, $p < .001$, $\eta_p^2 = .164$, this variance was explained solely by the main effect of the manipulation of sport type $F = 37.97$, $p < .001$, $\eta_p^2 = .13$. Overall, participants in the basketball conditions rated athletes who played that sport as significantly more masculine ($m = 2.85$) than did those in the volleyball conditions ($m = 2.26$). No other significant main effects or interactions emerged, suggesting that, even immediately after exposure to an image of an athlete that breaks stereotypes, long-held beliefs about the types of athletes who play certain sports are firmly entrenched.

Table 2. Means and Standard Deviations for Interest in the Sport by Condition and Participant Gender

	Men (N = 58)		Women (N = 209)	
	Mean	SD	Mean	SD
Overall interest in the sport	3.26	0.87	3.24	0.70
Basketball conditions (masculine sport) combined	3.28	0.87	3.31	0.70
<i>Masculine athlete</i>	3.40	0.92	3.30	0.72
<i>Feminine athlete</i>	3.09	0.77	3.34	0.68
Volleyball conditions (feminine sport) combined	3.24	0.89	3.16	0.68
<i>Masculine athlete</i>	2.83	1.07	3.27	0.66
<i>Feminine athlete</i>	3.45	0.74	3.04	0.70
Masculine athlete conditions combined	3.24	0.98	3.29	0.69
Feminine athlete conditions combined	3.29	0.76	3.19	0.70

Note: Dependent variable measured on a 1-5 scale where 5 = highest interest in the sport. Model includes fixed factors of athlete appearance, sport type, and participant gender and a covariate of sport participation. Italics show the significant three-way interaction. Outlier by participant gender noted in bold.

Discussion

Interest in the Story and Sport

This study first investigated whether exposure to a feminine female athlete could, at least in the short term, trigger increased interest in a news story and the sport it depicted. Results indicate the feminine appearance in female athletes is linked to greater interest in a

story and a sport but only for men and only when the feminine athlete was participating in a stereotypically feminine sport. As indicated in previous literature, men prefer for female athletes to maintain a feminine image (Bernstein, 2002; Brooks, 2001; Cuneen & Claussen, 1999). For both interest in the sport story and interest in the sport, men who saw a feminine athlete playing volleyball, which has been repeatedly typed as feminine (Hardin & Greer, 2009; Koivula, 2001), reported significantly higher scores than men who saw a masculine athlete playing volleyball.

Looked at another way, you could argue that men exposed to a photo of a masculine female athlete participating in a feminine sport were significantly less interested in the article and the sport. Previous research indicates that masculine female athletes in general break gender schemas in society (Duke & Greer, 2008; Koivula, 2001). Because the design didn't include a control group that read the article without a photo, we don't have a baseline measure for overall interest in the story and in the sport. However, television ratings and anecdotal evidence would suggest that overall interest in women's volleyball in the general population is likely lower than overall interest for women's basketball. Furthermore, athletes participating in gender appropriate sports are perceived more positively by society (Harrison & Lynch, 2005; Pederson, 2003; Schmalz, 2008). In grouping the above results, we could argue that the appearance of an athlete congruent with gender schematic stereotypes for a sport actually increases interest in a sport for male participants.

Under the premise of gender schema theory, masculine athletes should participate in masculine sports, and feminine athletes should participate in feminine sports (Knight & Giuliano, 2003; Vincent, 2003). Therefore, findings suggest that congruency between athlete appearance and type of sport is not only important to interest in women's sports among men, but also to men's interest in a particular sport. Men were more interested in the story and the sport of volleyball if the participating female athlete was feminine, or in other words, she was participating in a gender-appropriate sport.

Further support for this conclusion comes when examining men's reactions to masculine and feminine athletes playing women's basketball. Basketball has been typed as masculine (Hardin & Greer, 2009; Koivula, 2001), and while past studies haven't broken out women's basketball, the manipulation check showed that participants in this study did type the sport as significantly more masculine than women's volleyball. While interest in the story was virtually identical among male participants in the basketball conditions, regardless of which athlete they saw, interest in the sport was significantly lower for male participants who saw a feminine female athlete as the representation of the sport. Just as in volleyball, men's interest in women's basketball waned when the athlete didn't fit the gender stereotype for female athletes who play that sport.

These findings together suggest that male participants, controlling for sport participation, react negatively to incongruence in gender schematic notions of female athletes and women's sport. These findings support previous literature, in that those with schematic, congruent appearances to schemas in society are more likely to be perceived as viable and popular individuals, at least for men (Alter & Ceta, 2005; Chang & Hitchon, 2004; Madera, et al., 2007).

Previous literature on female perceptions of female athletes varies. (Klomsten et al., 2005) found that women value a beautiful, slender, and feminine appearance in a female athlete. Interestingly, women in the study differed from the men on these variables. While congruency was linked to greater interest in women's sports for men, the women were less interested in both the article and the sport in the schematic congruent condition (feminine/volleyball). Women were less likely to be interested in the sport of volleyball if the athlete portrayed was feminine. Furthermore, women were less likely to be interested in a volleyball article if the athlete was feminine. Female participants were significantly more interested in the story and the sport when the feminine athlete was depicted playing basketball, a masculine-typed sport.

Perhaps female participants were bored by the congruency between the feminine athlete and the feminine sport, or as Angelini (2008a) suggests, women are more aroused by female athletes that break gender norms. Furthermore, literature indicates that media viewers base expected roles of female athletes from media examples (Greendorfer & Rubinson, 1997). Perhaps the limited coverage of feminine, female sports (such as volleyball) does not allow female viewers to form schemas for these athletes (Jollimore, 2002). Despite these differences, it is clear both males and females employ the sex-typing of sport to label female athletes, which only reinforces gender stereotypes in sport.

Sex-Typing of Athletes and Sport

The final research question in this study explored whether exposure to an athlete who breaks stereotypes of the sex-typing of the sport could change perceptions about the types of female athletes who play the sport. If a reader sees a story about a masculine sport (basketball) but the athlete shown representing that team is highly feminine in appearance, might this have at least a short-term effect on perceptions of whether athletes who play this sport are masculine or feminine? For this to be the case, we would have had to discover interactive effects between sport type and femininity of the athlete's appearance in this 2 x 2 experimental study. No such effects were found in this study.

Overall, participants who saw a story about basketball reported higher interest scores than those in the volleyball conditions, regardless of which athlete was pictured. Participants rated basketball players as more likely to have muscles, be "butch," and be "bigger girls" than volleyball players, even if they saw a star athlete who clearly didn't fit the stereotype for each

sport. Overall, male participants rated basketball players as slightly more masculine and volleyball players as slightly more feminine than did the female participants. While this interaction was not significant, the trend further supports the finding from the first two research questions and previous literature that men are more reliant on gender schemas in viewing female athletes (Binks, 2004). Therefore men prefer to see masculine female athletes participating in masculine sports, and feminine female athletes participating in feminine sports.

Consistent with past research, stereotypical perceptions of the type of athletes participating in a masculine or feminine sport exist and were not disrupted by a single image that challenged these stereotypes (Harrison & Lynch, 2005; Krane, et al., 2004). However, unlike content analyses of the media portrayals of gender-typing and sport stereotypes, this research explored such stereotypes from the perspective of the media audience. Specifically, female athletes participating in basketball are perceived by the media audience to be more masculine, than female athletes participating in volleyball. Even immediately following exposure to contradictory visual stimuli, gender-typing stereotypes reign. Sex-typing in sport is a long-held social phenomenon that cannot easily be defeated with exposure to a single stimulus. Female athletes participating in a masculine sport do not fit schemas placed on females in society. Therefore these athletes are more likely to be labeled as “butch”.

Limitations

While these findings are significant and add to our knowledge of effects of sex-typing in sport, they should be viewed in light of some limitations. As with all experimental research using convenience samples, our findings are only generalizable to populations similar to our participant pool – college-aged, white, and largely female. While the sample size and the number of men in the study was sufficient based on power analysis, this study would benefit from replication with other populations, and with more male participants. Further, the selection of sports is limiting. Perhaps different results would be found in looking at other types of women’s sports. Finally, the athletes chosen for the images, while found to be clearly distinct in masculinity and femininity in the manipulation check, depicted women who were distinct in terms of color and body size. The masculine photo depicted a larger woman with dark hair and eyes and a darker complexion. She might identify herself as white, of Hispanic origin, as defined by U.S. Census classifications of race and ethnicity. The feminine athlete, in contrast, was petite and blond. However, previous research has identified petite, light complexion and fair hair as the Western ideal of feminine beauty (Early, 1990). Therefore, these differences likely only further enhanced the manipulation of femininity in the study. Still, because there were so few minority participants, we could not examine whether ethnicity of the athletes or the research participants were confounding variables.

Conclusion

Understanding the reactions of media consumers to sport stereotypes and sex-typing in sports is the first step in understanding the effects of such perceptions on society. Furthermore, understanding audience interest in sport media and sport is necessary to induce change in the portrayal of female athletes. If female sport media consumers would rather view a masculine female sport, or a masculine female athlete participating in a feminine sport, then the current portrayal of female athletics in the media is not marketable to female viewers. Literature indicates that feminine female sports receive more media coverage than masculine female sports (Vincent, 2003). Furthermore, female athletes are often depicted as being feminine (Cuneen & Claussen, 1999; Fink & Kinsicki, 2002; Jollimore, 2002). On the other hand, male media consumers are repelled at the thought of masculine female athletes participating in feminine sports, based on the negative media portrayal of masculine female athletes (Angelini 2008b). Such stereotypical repetition in media coverage only limits the interested media audience and inhibits stereotypes in sport.

This study examined the likelihood of changing perceptions about female athletes and women's sport. Findings suggest that brief exposure to images that contradict stereotypes in sport do not change perceptions about stereotypes in sport. Would long-term, repeated exposure to such stimuli have a greater impact on changing perceptions? Future, longitudinal research is considered necessary to explore this query.

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Footnotes

¹ The introductory communication classes were from the College of Communication, where about 67% of the students are women. The university population is about 55% women. The low number of male participants also should be seen as a limitation to the study.

² The remainder identified as Asian American (1, 0.4%), Pacific Islander (1, 0.4%), and Native American (1, 0.4%). Four participants (1.6%) identified as belonging to two ethnic categories. The ethnic breakdown was virtually identical to that of all students in the college.

³ Participants who say the feminine athlete playing basketball were significantly older ($m = 21.02$) than the other groups ($m = 19.52$ to 19.58), however, age was not used in the analyses.

⁴ The names of the coaches also were changed in case participants had knowledge of the team.

⁵ The distribution of research participants to the four groups is not equal because one instructor initially mistakenly directed all students to the first condition. This mistake was quickly discovered and corrected, and the remaining students in that class were randomly assigned to group. Before analyses were started, researchers ensured that the first group was equivalent to all other groups based on gender, age, ethnicity and sports participation. As no differences were found, the researchers retained all participants for the final data analyses.

⁶ As Miller and Chapman (2001) argue, Analysis of Covariance is the appropriate tool to use when experimental groups do not differ on the covariate (in this study, sports participation).

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