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(Not) Higher, Stronger or Swifter: Representation of Female Olympic Athletes in the Israeli Press

By Yair Galily¹, Nadav Cohen and Moshe Levy

Abstract

Despite the IOC declaration of intent for gender equality in sport and in light of the fact that a greater number of women are participating in the Olympic Games covert connotations are hidden behind the distorted and biased image presented of female athletes in the press. The current study asks whether the size and extent of coverage really matter; does more extensive coverage necessarily mean equal and true representation of women in sport, or are we getting more of the same? The findings in this study indicate two parallel processes in terms of article content: First, the greater the number of articles, the more stereotypical and biased the content becomes. Secondly, over the years, representation of female athletes has become increasingly negative and biased. Over the three Olympic Games examined (1996, 2000, 2004), female athletes were presented in a biased and stereotypical ways in relative to male athletes. The change in coverage over the years has proven to be a tendency to stereotypically present female athletes in a more negative light in comparison to male athletes.

Keywords: Gender, Sport, Israel, Press, Olympic Games

Female Participation in the Olympic Games

The Olympic Games represent one of the most significant events in the world of sport, yet injustice and inequality towards female participation has not eluded them. Social and cultural changes that have taken place in the past and present have been reflected by the Games, including changes in the role and status of women (Lee, 1992). Since their start in 1896 and up until current competitions, the history of the modern Olympic Games has marked a series of changes in the participation of women – from rejection and limitation to their inclusion in practically every sports branch (Vincent, 2000). In recent decades and especially during the 1990s women activities in the Games' organization and management have also widened. Thus, for example, more and more women have reached senior positions in sports organizations and the International Olympic Committee (IOC) and are serving as members in various sports committees (e.g. Anita DeFrantz, who was appointed Vice-President of the IOC in 1997). Sports competitions in the Olympic Games similarly illustrate the changes that have taken place in the attitude towards female athletes (Bernstein, 2002), as the number of sports branches, events and competitions for women within the Olympic Games framework has consistently increased (IOC Report, 2005). In the 2000 Sydney Games, for instance, women accounted for 38% of all the participants (in comparison to 34% in the 1996 Atlanta Games), and they competed in a record number of 118 sport events out of a total of 300. One of the initiatives that has contributed to the increase in the number of female athletes and the number of events for women was the IOC's declaration in 2000 to fully

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recognize equality between men and women in the Olympic Games (*ibid*, 2005). Consequently, an additional increase in the participation of female athletes in the Olympic Games occurred in the 2004 Athens Games (some 44% of all participants). Undoubtedly, major strides were taken in the 20th century to integrate women in sport and to participate in the Olympic Games. Yet, despite increased participation of female athletes in sports, in general, and in the Olympic Games, in particular, female athletes are still struggling for gender equality within the field (Capranica and Aversa, 2002; Coakley, 2009; Crolley and Teso, 2007; DeFrantz, 2000; Eastman and Billings, 1999,2000; Messner *et. al.* 2003).

Extent of Media Coverage of Female Athletes

Sport fans, a significant media consumer audience, are exposed to a wide coverage of various sport events through different types of media. It has been argued that the coverage of sport events clearly discriminates between male athletes and their female counterparts. The meager coverage of female athletes until the 1990's is illustrative of their absence from the media. Researchers have found that press coverage of female athletes has consistently failed to fairly represent their athletic achievements. Empirical studies indicate that in the media, printed as well as electronic, female athletes are under-represented in comparison to their male counterparts (Bryant, 1980; Theberge, 1991).

Well-documented findings have shown that female athletes are relatively lacking in the media because they and the sport events in which they participate are consistently under-represented (Kane, 1989). This phenomenon has resulted in the female athlete's "symbolic annihilation" (Gerbner, 1977). Media coverage has continued to undermine women's achievements, has reinforced the concept that sport belongs to men and has reflected male hegemony, especially in the reporting of daily sports. This concept has been supported by studies focusing on representation and coverage of female athletes in the press from the 1950's to the early 1990's (Coakley, 2009; Duncan, et al., 1990; Lumpkin & Williams, 1991; Rintala & Birrell, 1984).

However, towards the 1990s it appeared that the negative trend in the representation of female athletes took a turn. Already by the end of the 1980s, Pfister (1989), who investigated newspaper coverage in Germany of the 1988 Seoul Games, found that female athletes received more extensive coverage in comparison to former Olympic Games. From the 1990s, continuing with the transition to the 21st century, it appeared that the changing trend was validated and expressed, mainly by the increasing extent of coverage female athletes received during the Olympic Games (Higgs & Weiller, 1994; Kane & Greendorfer, 1994).

The increasing extent of coverage during the Olympic Games seems to be derived from the new strategy employed by the IOC to advance equality, seen in the Committee's declaration for equal opportunities for men and women (IOC, 2000). A study conducted by Bernstein (1997), who examined the extent of coverage of female athletes in the Israeli and British press during the 1992 Olympic Games in Barcelona, found an increase in the coverage of female athletes by the sports press. Results of the study showed that during the Games female athletes received 26% of the press coverage in both countries (in the *Hadashot* and *Yediot Ahronot* newspapers in Israel and in the *Times* and the *Express* newspapers in Great Britain).

A study that examined the extent of coverage in the 1996 Atlanta Games found that women had greater television coverage in comparison to men in terms of the number of sports competitions covered (Higgs & Weiller, 2003). A comparison of the total amount of time the same sport competition received in the 1992 Barcelona Games and the 1996 Atlanta Games shows that sports coverage of women increased in six out of 11 sports branches that were analyzed. In contrast, the extent of coverage of sport branches in which men competed decreased in four out of the 11 sports branches analyzed.

Similarly, in a study that examined press coverage of female athletes in the 2000 Sydney Games in Belgium, Denmark, France and Italy, a consistent increase in the number of articles dealing with events related to female athletes was found (Caparnica, et al., 2005). In this study, 5,557 articles that covered the 2000 Sydney Games were analyzed. Results indicated that 29.3% of the articles dealt with women's sport, 51.8% with men's sports, and 18.9% were mixed (men and women together). The study also found that although only 29.3% of all the articles and 38% of the pictures were of female athletes, the press coverage was proportionate to the distribution of events and the athletes who participated. This finding supports the claim that coverage of female athletes during the Olympic Games (until the 2000 Sydney Games) has gradually increased in the last decade.

In light of this positive change, a more in depth investigation of this increased coverage should be conducted to examine whether this change has been accompanied by a growing positive construction of the significance of female athletes in sport events, and whether the representation of women has also changed as a result.

Representation of Female Athletes in the Media

A large number of studies on the role of the media regarding women and sport continue to focus on the representation and description of women's sport by the media (Dyer, 1993). Gender comparisons of media representation have generally found men to generally be described as "masculine", vigorous, and physically as well as mentally strong. Female athletes, on the other hand, have generally been presented according to cultural stereotypes linking "femininity" with weakness, dependence, passivity, emotionality, and submission. Women are frequently described in terms of their social role: as spouses, wives or mothers (Duncan & Hasbrook, 1988; Kane & Greendorfer, 1994; Rintala & Birrell, 1984; Salwen & Wood, 1994). In this sense, it appears that when women get coverage, the media focuses most of its attention on those sports branches traditionally perceived as providing an accepted stereotypical feminine image reinforcing existing social norms, such as gymnastics and synchronized swimming (Shifflett & Revelle, 1994).

A no less gloomy picture is seen when women excel in sports. The central motives that repeatedly arise include character flaws such as emotional dependence, anxiety and depression, conflicts regarding sexual identity, and conflicts regarding gender roles. The dominant message is clear: female athletes should evoke their stereotypical gender role rather than their athletic role (Kane, 1989). Such undue coverage presents an array of perceptions on the basis of gender that sustain women's systematic inferior position in society (Hartley, 1996).

As a rationale for such biased coverage, it has been argued in the literature that one of the roles sport plays in society is to construct and validate masculine superiority in

and beyond the field of sports. Men are to be exposed to sport and its ideology as a means of reinforcing their masculinity. As such, sport becomes a symbolic action through which traditional views of gender and gender differences gain validation and reinforcement (Kane & Greendorfer, 1994; Kane & Snyder, 1989; Sabo & Messner, 1993). These reinforced traditional views lead gay men and lesbians who participate in sport to be often marginalized, ignored and in extreme circumstances be subject to harsh criticism and even physical violence (Coakley, 2009). As such, it is not surprising that many lesbian and gay athletes choose to hide their sexual orientation from their teammates and their fans.

As a central and constitutive sport event in world culture, the modern Olympic Games almost simultaneously offer the world a view of diverse sport branches and athletes, a chance to restructure the social-cultural differences in sport coverage, and the opportunity to compare between cultures and nations (Vincent, 2000). A study conducted by Higgs and Weiller (1994) indicates that although women received greater coverage in individual sports branches in Barcelona, 1992, the coverage that focused on gender and gave a distorted and ambivalent report focused on personality lines rather than aspects related to athletic skills. A qualitative analysis conducted on the 1996 Atlanta Games reveals considerable differences between the coverage of female athletes and that of male athletes. This was especially pronounced in the coverage of women's sports branches that traditionally attract the media, such as gymnastics and synchronized swimming. In these sports branches, feminine images were stereotypically maintained. The media did not emphasize the athletes' achievements, but rather focused on gender symbols such as shots of female body parts and stereotypical expressions of passivity, submission, inferiority and obedience (Higgs *et al.* 2003). It appears that to this day the media tries to give an impression that women's sport is less competitive, less exciting, and less interesting than men's sport. Thus it fulfills its role in constructing and maintaining the gender order in all of the sports branches (Burroughs & Ashbourne, 1995).

In light of the increasing equality between men and women who participate in the Olympic Games - the extent of the budget and the number of events allotted to each gender - it appears that changes have taken place in the extent of coverage of female athletes and their representation in the Israeli sports press.

As suggested by Lemish (2002), the Israeli context presents unique challenges to understanding the role of women. The traditional national emphasis on family and childbearing perpetuates the view of woman's place as being in the private sphere and puts her in conflict with activities outside this realm. The centrality of the army, the ongoing military conflicts, and the system of values associated with them—such as war, conquest, repression, exploitation and violence—have come to dominate the public sphere and serve to marginalize women. According to Lemish, a realistic assessment of the picture of the world presented by the media still leaves women on the margins of social, economic, cultural and political processes, as has been documented in Israel and in many other studies worldwide. An examination of the Israeli media reveals fundamentally patriarchal representations, including relegation of women to the private sphere and to the physical functions of sex and reproduction; and the location of women in the world of emotions, where rational thought is lacking and behavior uncultivated. The perception of women's social marginality is advanced in all of the media; To the extent that women are shown at all, they are limited primarily to traditional private-

sphere roles, or, in the public sphere, to such traditional caring roles as volunteering in service activities, education, health and welfare. Women's personality traits are depicted as different in nature from those of men; they are less logical, ambitious, active, independent, heroic and dominating, and more romantic, sensitive, dependent and vulnerable.³⁶

The hypotheses that were tested in this Israeli cultural context focus on two main aspects in the coverage in Israeli press of female athletes as opposed to male athletes: extent of coverage and the form of representation and coverage.

Hypotheses

Three hypotheses on the extent of coverage and the representation of female athletes as opposed to male athletes were tested in the current study. The study examined the three Olympic Games jointly (1996, 2000, 2004) as one period for investigation, as well as each of the Games separately. The hypotheses examined were the following:

1. The extent of coverage of female athletes was unequal to the extent of coverage of male athletes in the three Olympic Games examined.
2. The extent of coverage of female athletes participating in the three Olympic Games examined has increased in comparison to the coverage of male athletes.
3. Female athletes were covered and represented unequally to male athletes in the three Olympic Games examined.

Methodology and Sample

The current study is based on a quantitative content analysis of articles that cover athletes (male and female) in the sports supplement of the Israeli newspaper *Yediot Ahronot*. This newspaper was chosen because of its wide readership in Israel. In the middle of the week readership reaches 56.7%(!) of all newspaper readers in Israel (according to the TGI Survey, 2009). Moreover, the print media is the most suitable for examination, as it presents events chronologically. Electronic means of communication on the other hand, integrate as part of the broadcasting game sequence, sport events that are not part of the Olympic Games as well as repeat broadcasts as part of game coverage.

For the purpose of this study, we examined all articles published in the sports supplement of *Yediot Ahronot* during the three Olympic Games: Atlanta (1996), Sydney (2000) and Athens (2004). Newspaper articles from the day prior to the opening of the Games until the day after their closing were examined. Although the newspapers included reports of other sport events as well, only reports, stories and pictures that focused on the Olympic Games were included for investigation—a total of 174 articles.

To compare between female and male athletes, the reports and pictures were classified into three categories: articles which covered only male athletes (m) (N=101), articles that covered only female athletes (f) (N=24), and articles that included coverage of both male and female athletes (m/f) (N=49).

Procedure and Data Analysis

One hundred and seventy four articles were gathered for comparison and precise records of the variables examined, such as the color of the title, size of the picture, and

size of the title in square centimeters (the area of the title was calculated by multiplying the length of the title by its width). Each article was analyzed separately by all three co-authors of this paper. All of them used a code sheet that included 97 different variables. These variables were gathered from the existing literature on the subject examined (Coakley, 2009; Lamish, 1998; Weiman, 2000, Bernstein, 2002). The variables were randomly divided into two levels of examination: 1). The extent of coverage expressed in the quantitative variables, such as length of article, size of pictures, etc.; 2). Questions regarding forms of representation: in what context do female athletes appear; how is their biography presented, and which "commentary package" is employed in the article covering them. This was compared to the "commentary package" employed in articles that cover male athletes (Gamson & Modigliani, 1987). Once the process of filling out the code sheets and analyzing all the articles were completed, the data was entered into a computer using the SPSS statistical analysis spreadsheet.

Findings

Hypothesis 1

The first hypothesis suggests that the extent of coverage of female athletes was unequal to the extent of coverage of male athletes in the three Olympic Games examined. This hypothesis was examined in two ways: analysis of the differences between the extent of coverage of male and female athletes, and a comparison of the coverage between the genders during the three Games jointly. In order to examine whether the coverage variables (length of verbal items, for instance) were linked with the gender of the athletes covered in the article, univariate analyses were conducted which compared the data on male only articles with female only articles and mixed gender articles, as presented in Table 1.

Table 1: coverage variables (length of verbal items, for instance) were linked with the gender of the athletes covered in the article, compared data on male only articles with female only articles and mixed gender articles

Variable	The coverage figure	N	AVR	STDV	F
Number of words per article	Male athlete	101	490.45	411.88	3.134*
	Female athletes	24	288.92	151.08	
	Mixed gender**	49	537	478.161	
title font size	Male athlete	101	91.06	42.152	4.202*
	Female athletes	24	62.06	52.678	
	Mixed gender**	49	82.31	45.069	
number of words per title	Male athlete	101	4.55	2.512	037.
	Female athletes	24	4.67	3.497	
	Mixed gender**	49	4.49	2.301	

number of words per subtitle	Male athlete	101	24.19	10.252	1.027
	Female athletes	24	21.04	12.736	
	Mixed gender**	49	24.69	10.568	
Number of pictures per item	Male athlete	99	1.35	644.	1.187
	Female athletes	23	1.17	.491	
	Mixed gender**	49	1.43	736.	
mean picture per item (cm)	Male athlete	98	208.38	121.01	1.575
	Female athletes	23	170.47	86.51	
	Mixed gender**	48	184.00	87.52	

male & female ** $p < .05$ *

Results in Table 1 indicate that a significant difference was found for the variable examining the item length ($p < .05$, $F = 3.134$). The mean verbal length of articles on male and female athletes together and male athletes alone was significantly higher than the mean verbal length of articles on female athletes alone. Similarly, a significant difference was found for the title font size variable ($p < .05$, $F = 4.202$), as the mean font size of articles covering only female athletes was significantly smaller than the mean font size of articles covering only male athletes. Subsequently, in order to compare coverage measures between articles whose central figure was a man as opposed to articles focusing on women, t-test analyses were conducted, and are presented in Table 2.

Table 2: t-test analyses compare coverage measures between articles whose central figure was a man as opposed to articles focusing on women

Variable	The coverage figure	N	AVR	STDV	T test
number of words per article	Male figure	129	531.20	450.264	3.034**
	Female figure	44	316.93	216.975	
title font size	Male figure	129	90.29	43.959	2.858*
	Female figure	44	68.06	46.271	
number of words per title	Male figure	129	4.46	2.478	-.743
	Female figure	44	4.80	2.954	
number of words per subtitle	Male figure	129	24.75	10.2	1.782
	Female figure	44	21.43	11.962	
Number of pictures per item	Male figure	127	1.38	678.	853.
	Female figure	43	1.28	591.	

mean picture per item (cm)	Male figure	125	206.173	114.96	1.986*
	Female figure	43	168.25	83.99	

p < .01 ** p < .05 *

The data as presented in Table 2 indicate three significant differences. A significant difference was found for the item's verbal length variable ($p < .01$, $t = 3.034$), such that the mean verbal length of articles focusing on male athletes was significantly higher than that of female athletes. A significant difference was found for the title font size variable ($p < .01$, $t = 2.858$), such that the mean font size of articles whose central figure was a male was significantly larger than the mean font size of articles whose central figure was a female. Similarly, a significant difference was found for the picture size variable, which included up to three pictures per item ($p < .05$, $t = 1.986$), such that the mean picture size in articles whose central figure was a male was significantly larger than the mean picture size in articles whose central figure was a female. These findings indicate that the extent of coverage of female athletes was unequal to that of male athletes.

In light of the abovementioned findings, which indicate inequality between the extent of coverage of female athletes and male athletes, the first study hypothesis was confirmed. It is yet to be determined how this inequality is expressed in the coverage of female athletes in comparison to the coverage of male athletes.

Hypothesis 2

The second study hypothesis suggests that the extent of coverage of female athletes participating in the three Olympic Games examined increased in comparison to the coverage of male athletes. In order to examine this hypothesis data on male and female athletes were analyzed and compared in relation to each of the separate Games.

The study found that the appearance of female athletes increased only in the 2000 Sydney Games. In the 2004 Athens Games a decline in the coverage of female athletes was seen and gender inequality (press appearance of men as opposed to women) is again prevalent in the articles examined. During the 1996 Atlanta Games, in 63.3% of the articles no women appeared at all, in 9.6% of the articles only one female athlete appeared, and in 7.3% of the articles two female athletes appeared. In the 2000 Sydney Games, in only 45.3% of the articles did women not appear at all, in 15.6% of the articles one female athlete appeared, and in 14.1% of the articles two female athletes appeared. In the 2004 Athens Games, in 67.3% of the articles women did not appear at all, in 12.7% of the articles one female athlete appeared, and in 5.5% of the articles two female athletes appeared.

In terms of the tendency for equal coverage between the genders, similar results were found. In the Atlanta Games there was a big gap between the articles that did not cover one of the genders (women were not covered in 63.3% of the articles and men were not covered in 10.9%). During the Sydney Games female athletes were given greater coverage and the gap was narrowed (in 45.3% of the articles women were not covered as opposed to 21.9% of articles that did not cover men). In Athens the gap widened again and gender inequality in coverage returned. In 67.3% of the articles female athletes were not covered while in only 7.3% of the articles male athletes were not covered. Additional

measures were then examined to compare the extent of coverage throughout the three Olympics Games combined.

The findings presented in Table 3 indicate the differences in coverage measures, as were found in articles whose central figure was a man as opposed to a woman. The aim of the analysis was to conduct a comparison among the three groups using quantitative measures of the extent of coverage.

Table 3: Averages, Stdv, minimum and maximum Values of coverage Index, comparison among the three groups using quantitative measures of the extent of coverage.

Olympic Games	Variable	The coverage figure	N	AVR	STDV	F value
1996 Atlanta Games	number of words per article	Male athlete	35	411.17	257.02	657.
		Female athletes	6	325	219.93	
		Mixed gender**	14	489.36	431.34	
	title font size	Male athlete	35	106.11	39.062	185.
		Female athletes	6	104.33	73.84	
		Mixed gender**	14	114	39.66	
	number of words per title	Male athlete	35	3.63	1.716	3.981*
		Female athletes	6	6.50	5.753	
		Mixed gender**	14	4.93	2.20	
	number of words per subtitle	Male athlete	35	23.86	9.617	440.
		Female athletes	6	28.17	16.055	
		Mixed gender**	14	23.79	10.693	
	Number of pictures per item	Male athlete	33	1.27	517.	1.439
		Female athletes	6	1.33	516.	
		Mixed gender**	14	1.57	646.	
	mean picture per item (cm)	Male athlete	33	230.70	134.18	164.
		Female athletes	6	222.08	97.01	
		Mixed gender**	14	208.64	91.91	
2000 Sydney Games	number of words per article	Male athlete	29	668.10	592.69	3.474*
		Female athletes	14	302.21	131.27	
		Mixed gender**	21	682.62	599.73	
	title font size	Male athlete	29	77.86	51.845	1.925
		Female athletes	14	49.32	36.131	
		Mixed gender**	21	63.05	42.69	

	number of words per title	Male athlete	29	4.69	2.607	1.011
		Female athletes	14	4.00	2.418	
		Mixed gender**	21	3.76	1.998	
	number of words per subtitle	Male athlete	29	27.28	12.969	1.364
		Female athletes	14	20.71	11.013	
		Mixed gender**	21	26.00	12.321	
	Number of pictures per item	Male athlete	29	1.31	66.	629.
		Female athletes	13	1.15	55.	
		Mixed gender**	21	1.43	811.	
	mean picture per item (cm)	Male athlete	28	183.73	92.70	408.
		Female athletes	13	157.50	79.23	
		Mixed gender**	21	168.32	96.21	
2004 Athens Games	number of words per article	Male athlete	37	426.19	316.01	1.392
		Female athletes	4	188.25	52.60	
		Mixed gender**	14	366.21	191.51	
	title font size	Male athlete	37	87.16	32.057	3.027*
		Female athletes	4	43.25	41.548	
		Mixed gender**	14	79.50	37.860	
	number of words per title	Male athlete	37	5.32	2.829	280.
		Female athletes	4	4.25	2.062	
		Mixed gender**	14	5.14	2.656	
	number of words per subtitle	Male athlete	37	22.08	7.836	3.877*
		Female athletes	4	11.50	8.062	
		Mixed gender**	14	23.64	7.722	
	Number of pictures per item	Male athlete	37	1.46	730.	934.
		Female athletes	4	1.00	000.	
		Mixed gender**	14	1.29	726.	
	mean picture per item (cm)	Male athlete	37	275.13	126.78	849.
		Female athletes	4	135.25	79.83	
		Mixed gender**	13	182.79	65.43	

p < .05 *

The following is a description of the significant findings when the three Olympic Games were examined separately:

The 1996 Atlanta Games: A significant difference was found for the number of words per title variable ($p < .05$, $F = 3.981$), such that the average number of words in titles of articles on male athletes was significantly lower than the average number of words in titles of articles on female athletes.

The 2000 Sydney Games: A significant difference was found for the number of words per article variable ($p < .05$, $F = 3.474$), such that the average number of words per item on male athletes was significantly higher than in the other two Games. In addition, articles whose central figure was a female athlete had almost twice as many average words in comparison to similar articles in the other Games. This finding supports the finding that the Sydney Games were the most equal in terms of extent of coverage.

The 2004 Athens Games: A significant difference was found in the number of words per subtitle variable ($p < .05$, $F = 3.877$), such that the mean number of words per subtitle of articles on female athletes was significantly lower than that of male athletes or both genders. Similarly, a significant difference was found in font size ($p = .05$, $F = 3.027$), such that the average font size of articles title on female athletes was significantly smaller than the average font size of articles on male athletes.

In order to examine the differences between coverage measures of articles whose central figure was a male athlete and those of female athletes, univariate analyses were conducted separately for each of the Olympic Games.

The following is a description of the significant findings for each of the separate Olympic Games.

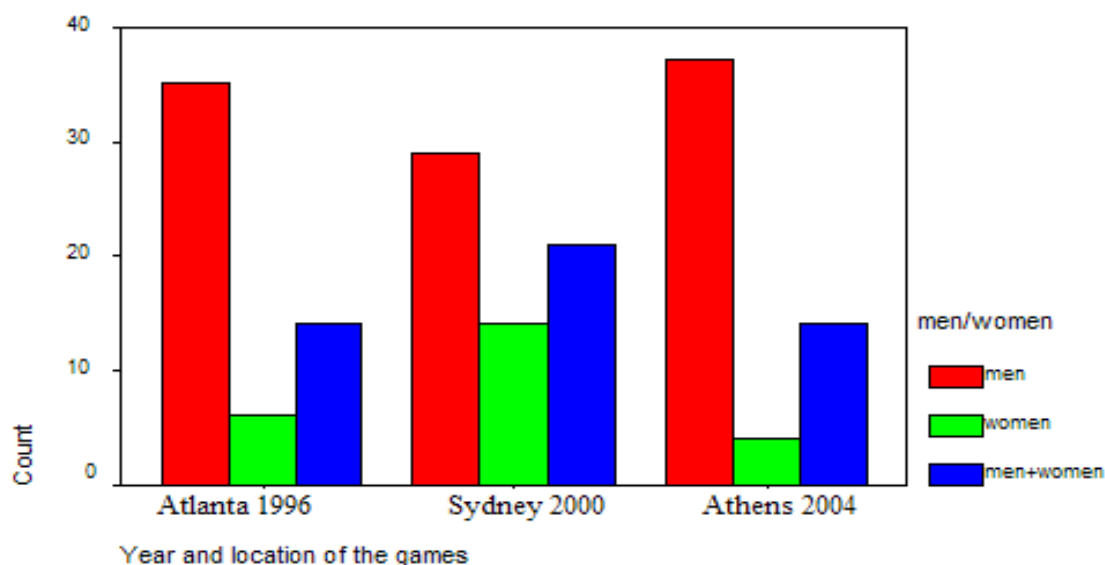
The 1996 Atlanta Games:

A significant difference was found for the average number of words per title variable ($p < .05$, $t = 2.434$), such that the average number of words per title whose central figure was a male athlete was significantly lower than the average number of words per title whose central figure was a female athlete.

The 2000 Sydney Games: A significant difference was found for the number of words per article variable ($p < .01$, $t = 3.474$), such that the average verbal length of articles on men was significantly higher than the average verbal length of articles on women.

The 2004 Athens Games: A significant difference was found for the verbal item length ($p < .05$, $t = 2.054$), such that the average length of articles on men was significantly higher than the average length of articles on women.

The link between the focus of coverage (male athletes, female athletes, or both genders) and the various Olympic Games was examined by cross-checking frequencies and by conducting a chi-square analysis. Results are presented in Graph 1.

Graph 1: Gender athletes covered in three Olympic Games

As Graph 1 indicates, in the 1996 Atlanta Games and the 2004 Athens Games the majority of articles (63.3% and 67.3%, respectively) dealt with male athletes only, and 25.5% of the articles covered both genders. In contrast, in the 2000 Sydney Games only 45.3% of the articles focused only on male athletes, 33% covered both genders, and 22% covered female athletes. Despite differences among the three events, a chi-square test found no significant differences among the three periods ($p > .10$, $\chi^2 = 8.726$)

To summarize: The analyses examining the second study hypothesis on differences in the extent of coverage of male athletes and female athletes during the Olympic Games attest that in all the Games men received more extensive coverage than women, both in terms of the number of articles and in terms of the article's verbal length. Thus, in articles whose central figure was a male athlete, the mean number of words was significantly higher in comparison to the mean number of words per article whose central figure was a female athlete. Similarly, the average size of photographs appearing in articles on male athletes was significantly larger than the average size of pictures in articles on female athletes. Moreover, title font size of articles on men was significantly bigger than the title font size of articles on women. It can therefore be concluded that during the entire period under study, unequal coverage of male and female athletes was maintained, indicating a significant gap in the extent of coverage between the two genders.

The findings show that in all three Olympic Games male athletes received more extensive coverage than female athletes in terms of number of articles, average number of words per article and number of figures covered in the article. When examining each of the Olympic Games separately, the Sydney Games, in comparison to the other two Games, were found to display the greatest equality in terms of the number of articles published on male and female athletes.

A comparison between the extent of coverage of the Atlanta Games and that of the Athens Games reveals that in Athens a significant decline occurred in the coverage of female athletes. Although the number of articles was almost equal in number to those covering Atlanta, the mean verbal length of titles was shorter and the mean picture size was smaller. In addition, the average number of words per article in the Athens Games was significantly lower than in Atlanta. Thus, in the 2004 Athens Games, the extent of coverage declined in comparison to both the 1996 Atlanta Games and the 2000 Sydney Games.

Therefore, the second hypothesis which claimed that the extent of coverage of female athletes has increased over the years in comparison to male athletes was refuted. According to the findings, a consistent trend of change indicating an increase in the extent of coverage of female athletes over the period of the three Games did not occur. In light of these findings, the representation of female athletes in coverage was compared to that of male athletes during the period under examination.

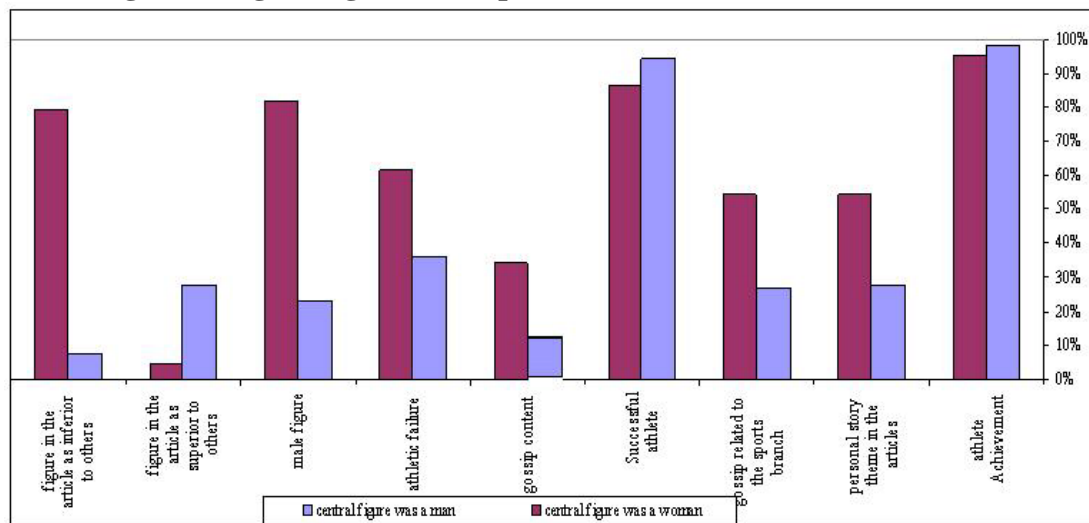
Hypothesis 3

The third study hypothesis explored whether female athletes were represented differently in comparison to male athletes who participated in the three Olympic Games. The hypothesis suggests female athletes were covered and represented unequally to their male counterparts in the three Olympic Games.

To test the hypothesis, differences were examined in representation variables, including characteristics attributed to each of the central figures in the article (i.e. dominance, dependence, submission, obedience, etc.), variables associated with the figure's external appearance, the main themes of the article as related to the central figures, and the female athletes status in the article in comparison to other figures.

Initially, representation measures of female athletes were examined in comparison to male athletes in all three Olympic Games. Associations between representation measures (success, failure and other representations as presented in the graphs below) and the central figure's gender in each article were explored. In Graph 2 results of the analysis conducted on themes associated with the central figure from the adjusted calculation of all the articles over the three Olympic Games examined and according to the figure's gender are presented.

Graph 2: results of the analysis themes associated with the central figure from the adjusted calculation of all the articles over the three Olympic Games examined and according to the figure's gender are presented.



Graph 2 indicates significant differences in the ways female athletes were represented as opposed to male athletes. Women were presented in the articles as inferior in relation to men. Moreover, articles on female athletes as opposed to male athletes concentrated on considerably more gossip content ("Olympic female athletes will star in Playboy magazine), personal stories ("An Olympic athlete and a mother" and women's failures (The water was too deep for Israeli female swimmers)).

To examine the third hypothesis, chi square analyses were conducted on measures of the various forms of representation and the gender of the article's central figure. When the central figure was a woman, associations were found with a personal story theme in the articles ($p > .01$, $\chi^2 = 12.089$). The article focused on a personal story in 55% of the articles whose central figure was a woman as opposed to 28% of the articles whose central figure was a man. A medium-to-strong relationship was found between the variables ($p < .01$, Cramer's $V = .264$). For athletic failure ($p < .01$, $\chi^2 = 10.228$) in 61.4% of the articles whose central figure was a woman concentrated on athletic failure in comparison to 35.7% of the articles whose central figure was a man. A medium to strong relationship was found between the variables ($p < .01$, Cramer's $V = .242$). For gossip content ($p < .01$, $\chi^2 = 14.745$), 34.1% of the articles whose central figure was a woman focused on gossip content, as opposed to 12.4% of articles on men. A medium to strong relationship was found between the variables ($p < .01$, Cramer's $V = .291$). For content that presented the figure in the article as inferior to others in the article ($p > .001$, $\chi^2 = 88.550$), 79.5% of the articles on female figures presented such content in comparison to only 7.8% of articles whose central figure was male. A very strong relationship was found between the variables ($p < .001$, Cramer's $V = .713$).

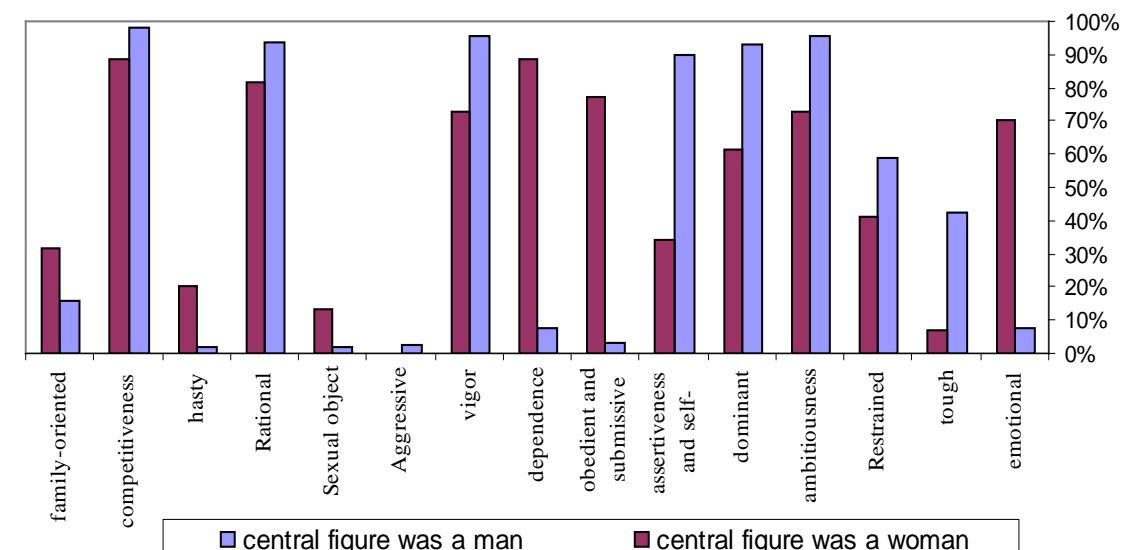
It was found that when the central figure of the article was a man, the article contents focused on gossip related to the sports branch ($p < .01$, $\chi^2 = 12.825$), such that 58% of the articles whose central figure was a man focused on such gossip content in comparison to 40% of gossip content in articles whose central figure was a woman. A medium to strong relationship was found between the variables ($p < .01$, Cramer's

V=.271). For content that presented the figure in the article as superior in relation to other figures in the article ($p<.01$, $\chi^2 = 10.771$), 28% of the articles presented men with a superior status as opposed to 4.5% of articles on women. A medium to strong relationship was found ($p<.01$, Cramer's V=.249).

Another form of representation were related to athletes' emotional images. Descriptions of emotion were examined in this study according to the literature on the subject, which argues that women are presented in the media with different character attributes than men. The current study analyzed main characteristics attributed to female athletes according to the literature, such as sensitivity, romanticism, dependence, and vulnerability. Main characteristics attributed to male athletes in the literature, such as ambition and dominance, were also analyzed.

The distribution by subject of emotional images according to the gender of the article's central figure, a result of the analysis of all three Games, is presented in Graph 3.

Graph 3: Distribution by subject of emotional images according to the gender of the article's central figure, a result of the analysis of all three Games



The data presented in Graph 3 indicate a number of significant differences between the way men and women are represented in descriptive and emotional terms. When an article's central figure was a woman, associations were found with her presentation as emotional ($p<.001$, $\chi^2 = 71.929$), such that 70.5% of the articles whose central figure was a woman, presented her as emotional, as opposed to only 7.8% of the articles on men. A very strong relationship was found between the variables ($p<.001$, Cramer's V =.643). For obedience and submission ($p<.001$, $\chi^2 = 109.230$), 77.3% of the articles on women presented women athletes as obedient and submissive as opposed to 10.3% of the articles on men. A very strong relationship was found ($p<.001$, Cramer's V =.792). For dependence ($p<.001$, $\chi^2 = 107.312$), 88.6% of the articles on women presented them as dependent as opposed to only 7.8% of articles whose central figure was a man. A very strong relationship between the variables was found ($p<.001$, Cramer's V=.785). For sex object representation ($p<.05$, $\chi^2 = 11.161$), 13.6% of the articles on women

presented them as a sex object as opposed to 1.6% of the articles focusing on a male figure. A weak relationship was found between the variables ($p < .05$, Cramer's $V = .179$). For unreasonable or hasty behavior ("Female fencer fails after forgetting to drink") ($p < .001$, $\chi^2 = 79.866$), 20.5% of the articles on women presented them as hasty as opposed to 1.6% of the articles on men. A medium to strong relationship was found between the variables ($p < .001$, Cramer's $V = .338$). For family orientation ($p = .05$, $\chi^2 = 9.371$), 32% of the articles on female figures presented them as family-oriented in comparison to 15.6% of articles on male figures. A weak relationship was found between the variables ($p = .05$, Cramer's $V = .165$).

When an article's central figure was a man, associations were found with the presentation of the figure as being tough ($p < .001$, $\chi^2 = 19.444$), such that 42.6% of the articles whose central figure was a man presented him as tough as opposed to 6.8% of articles focusing on women. A medium to strong relationship was found between the variables ($p < .001$, Cramer's $V = .334$). For ambitiousness ($p < .001$, $\chi^2 = 18.219$), 95.3% of the articles that focused on men presented them as ambitious, as opposed to 72.7% of articles whose central figure was a woman. A medium to strong relationship was found between the variables ($p < .001$, Cramer's $V = .324$). For dominance ($p < .001$, $\chi^2 = 30.562$), 93% of the articles focusing on men presented them as dominant as opposed to 61.4% of the articles whose central figure was a woman. A medium to strong relationship was found between the variables ($p < .001$, Cramer's $V = .419$). For assertiveness and self-confidence ($p < .001$, $\chi^2 = 58.684$), 90% of the articles that focused on men presented them as assertive and self-confident, as opposed to 34% of the articles that focused on women as central figures. A very strong relationship was found between the variables ($p < .001$, Cramer's $V = .581$). For vigor ($p < .001$, $\chi^2 = 18.219$), 95.3% of the articles that focused on men presented them as vigorous as opposed to 72.7% of the articles whose central figure was a woman. A fairly strong relationship was found between the variables ($p < .001$, Cramer's $V = .324$). For competitiveness ($p < .05$, $\chi^2 = 8.225$), 98.4% of the articles on male figures presented them as competitive as opposed to 88.6% of articles on women. A medium to strong relationship was found between the variables ($p < .05$, Cramer's $V = .217$). The third hypothesis was confirmed. Female athletes received unequal representation and coverage to male athletes who were consistently presented in a superior position to women.

Discussion and Conclusions

This study explored the extent of coverage and forms of representation by the Israeli press (the sports section of *Yediot Ahronot*) of male and female athletes in the last three Olympic Games.

As was hypothesized, the extent of coverage of male athletes in comparison to female athletes in the three Olympic Games examined was unequal. The findings indicate that in all three Games men received significantly more extensive coverage than did women.

The second hypothesis suggested that the extent of coverage of female athletes who participated in the three Olympic Games under examination increased in comparison to the coverage of male athletes, in the same aspects. The findings indicated significant differences among the measures examined in each of the separate Olympic Games in comparison to the period as a whole. In the 1996 Atlanta Games, more than two thirds of

the articles focused on male athletes only, and approximately a quarter covered both genders. In terms of the number of words per title, articles whose central figure was a man carried titles with a significantly lower number of words than those whose central figure was a woman. Similarly, in the Atlanta Games, the average number of words per article whose central figure was a female athlete was significantly higher than those in the 2004 Athens Games and slightly higher than those in the 2000 Sydney Games.

Notwithstanding, in the 2000 Sydney Games the number of articles on men and women was the most equal of the three Games examined. Less than half of all the articles during those Games covered male athletes, a third of the articles covered both genders, and a quarter of the articles covered female athletes. Nevertheless, in terms of article length, a significant difference was found, indicating that articles on male athletes were significantly longer than those on female athletes.

In the 2004 Athens Games, the extent of coverage of female athletes returned to the low levels of the 1996 Atlanta Games. Moreover, unequal coverage was greater in the Athens Games than in both the 2000 Sydney Games and the 1996 Atlanta Games. In more than two thirds of the articles no mention was made of female athletes. In addition, in the Athens Games a significant difference was found between the average number of words per article on male athletes and that of female athletes. The number of words per article was much higher for articles on male athletes in comparison to articles on female athletes. Similarly, a significant difference was also found for the font size of article titles, indicating that the title font size of articles on male athletes was significantly bigger than of those on female athletes.

Greater equality was found in the 2000 Sydney Olympics in comparison to the 1996 Atlanta Games in terms of the number of articles that mentioned female athletes. Moreover, more female athletes participated in these Games; almost half of all athletes were women.

These findings support earlier studies. Higgs and Weiller (1994) maintained that at the start of the 1990s a change in the extent of media coverage took place. A subsequent study found that at the start of the 21st century the changing trend in media coverage of female athletes was validated (Higgs et al., 2003). A more recent study also attests to this positive trend (Caparnica, et al, 2005). An increase in the extent of press coverage of female athletes in Belgium, Denmark, France and Italy during the 2000 Sydney Games was found. In the current study, the extent of coverage of female athletes during the 2004 Athens Games was also examined, and inequality was again prevalent in terms of the extent of coverage, which was lower than that found in the 1996 Athens Games.

Thus, when taking into account all three Games, our findings reveal that the extent of coverage of female athletes did not increase as was hypothesized. An analysis of the three Olympic Games indicates several trends that require explanation. First, in the Atlanta Games the ratio of articles and words per article was higher than that in the Athens Games. That is, the extent of coverage of the Athens Games was lower than that of the Atlanta Games. As for the interval between these two Games, it appears that behind the significant increase in the extent of coverage of female athletes in Sydney, several covert issues need to be considered. First, with the start of the 'Millennium Games' more female athletes participated in the Games, and in fact a record number of women participated in some 118 sport events

. Similarly, the number of Olympic sport branches for women increased, and more Israeli athletes competed in comparison to the other two Games. As a consequence, the extent of coverage of the Games, in general, grew in order to cover the Israeli angle within the Olympic Games framework.

Secondly, the findings indicating that the increase in the coverage of female athletes in the Sydney Games corresponds with the Olympic Games' basic declaration for gender equality in the year 2000 (IOC Report, 2000), which brought about organizational and structural changes, many of them in media coverage. A fact that cannot be ignored is that during the 2000 Sydney Games, the gap between the average number of words per article on men and the average number of words per article on women was the largest of the three Olympic Games examined.

Thus, in contrast to findings in the literature on the extent of coverage up until the 2000 Sydney Games, an overall view of the three Games examined, in regard to the Israeli press, indicates that the extent of coverage of female athletes has not only remained low, but even declined in terms of the 2004 Athens Games. Therefore, the second hypothesis that the extent of coverage of female athletes has increased over the years was refuted. Not only was low coverage found in all three Games, but a decline was also found in the extent of coverage of female athletes in the last Olympic Games. Similarly, a comparison between the extent of coverage of male athletes and female athletes indicates more extensive coverage in the first Games. As mentioned above, the seemingly more extensive coverage of female athletes during the Sydney Games, as was found in this study, was derived from factors other than greater equality in coverage of men and women. In light of the findings of the overall low coverage of women and the relative increase in the extent of their coverage during the Sydney Games, an investigation of the way female athletes were represented and covered in all three Games, and in particular the Sydney Games, was required.

The third hypothesis proposed that male and female athletes were unequally represented and covered in all three of the Olympic Games examined. The findings showed significant differences in the way both genders were represented and covered in those Games. One possible explanation for the differences is that in all the Games the articles examined were all written by men. Another possible explanation for the differences in gender representations (indiscriminant of the Games) has to do with the form of coverage. Thus, the contents related to male athletes indirectly present them in a superior position to other figures. They were described using stereotypical emotional images, such as dominant, vigor, ambitious, tough, assertive, competitive and self-confident. In contrast, contents related to female athletes present them in an inferior position to male athletes and the other figures covered in the article. Personal stories, gossip and athletic failures are integrated within such articles. However, female athletes were described using stereotypically feminine emotional images, such as emotional, obedient, dependent, irrational, hasty, family-oriented, and as sex objects.

It appears that in terms of the representation of athletes during the Olympic Games, the images and descriptions used to cover both genders indicate pronounced inequality between male and female athletes. This finding supports research literature claims that although women have received more extensive coverage during the Olympic Games over the years (until the Sydney Games), this coverage has been replete with distorted representations of women. Coverage has focused on making gender an issue.

Reporting has been ambivalent, emphasizing character lines instead of focusing on aspects related to athletic skills (Kane & Greendorfer, 1994). This is because the media has concentrated on maintaining an image that is supposed to send a 'feminine' message in order to sustain accepted 'feminine' social norms such as sensitivity, gentility, etc. (Bernstein, 2002). A study conducted by Vincent (2000) found similar findings. In his study, representations of female athletes in the Canadian, American, and British press during the 1996 Atlanta Games were compared. A tendency to describe female athletes in a traditional and stereotypical form using accepted emotional descriptions such as sensitivity, irrationality and passivity was found.

It appears that lack of gender equality continues to account for one of the leading aspects in the coverage of female athletes. Indeed, analysis of the articles examined in the current study indicates that when female athletes were covered, they were presented as inferior to other figures in the article and in relation to men. One explanation offered in the literature for the rationale and reinforcement of such biased coverage is that one of the roles of sport in society is the construction and validation of male superiority in and beyond the field of sport. Sport, as a symbolic activity reflective of traditional gender roles and gender differences, gains validation and reinforcement as a consequence (Kane & Greendorfer, 1994; Kane & Snyder, 1989; Sabo & Messner, 1993).

Such a claim is reinforced by the main finding of the current study regarding the representation of female athletes. When the central figures of an article were female athletes during the 2000 Sydney Games and the 2004 Athens Games, they were described as emotional, obedient, and as sex objects, while male athletes were described as tough, self-controlled, ambitious, dominant, assertive, and self-confident. The research literature has similarly found that in those sport branches in which women participate, the images related to them have remained stereotypically affixed. The media does not emphasize women's achievements, but rather focuses on their gender symbols, making use of photographs of feminine body parts and stereotypical expressions such as passivity, submission, inferiority and obedience (Higgs & Weiller, 1994).

Summary

In conclusion, the comparison of representations in the three Olympic Games examined indicates that in the 2000 Sydney and 2004 Athens Games, female athletes were presented by means of accepted 'feminine' descriptions according to existing social norms. In the 1996 Atlanta Games were milder and presented male and female athletes most equally. The 2000 Sydney Games were the most stereotypical in terms of the amount of emotional descriptions attributed to each gender.

Despite the IOC declaration of intent for gender equality in sport and in light of the fact that more women participated in the Sydney Games (IOC Report, 2000), beyond the more extensive coverage, covert connotations were hidden behind the distorted and biased image presented of female athletes. Thus the question remains whether the size and extent of coverage really matter; does more extensive coverage necessarily mean equal and true representation of women in sport, or are we getting more of the same? The findings in the current study indicate two parallel processes in terms of article content: First, the greater the number of articles, the more stereotypical and biased the content becomes. Secondly, representation of female athletes has become increasingly negative and biased over the years. In the three Olympic Games examined, female athletes were

presented in a biased and stereotypical way in relation to male athletes. The change in coverage over the years has proven to be a tendency to stereotypically present female athletes in a more negative light in comparison to male athletes.

As for the point of comparison between extent of coverage and form of representation, the findings from the 2000 Sydney Games clearly illustrate that the length and scope of articles are not measures indicative of equality. Size, in this case, only magnified and intensified the stereotypically negative presentations of female athletes. Thus, coverage of the 2000 Games was most extensive, giving an impression of greater equality, yet within this extensive coverage, extremely negative presentations of the female athletes were prevalent. That is, on the surface the coverage (more women represented, more words written about women, and more articles on women) grew, but negative representation was simply greater. In other words, the bigger 'stage' awarded to the coverage of women was abused in order to amplify their negative representation. This finding supports the research literature regarding the increase of coverage of women in the Olympic Games. Thus, as Higgs and Weiller (1994) contend, increased coverage of female athletes should be treated with suspicion. According to these authors, extensive coverage is always followed by a "but", and therefore the size and extent of coverage are meaningless measures. This means that beyond the variable of prevalence in articles, a deeper examination of the way female athletes are covered and represented is required.

Bibliography

- Bernstein, A. (1997). *The Newspaper Build Up and Coverage of the 1992 Barcelona Olympics in Britain and Israel*. Thesis Submitted for the Degree Doctor of Philosophy. Center for Mass Communication Research: University of Leicester.
- Bernstein, A. (2002). Is it Time for Victory Lap?: Changes in the Media Coverage of Women in Sport. International Review for the Sociology of Sport, 37, 415 – 428.
- Bryant, J. (1980). A two – year selective investigation of the female athlete in sport as reported in the paper media. Arena Review, 4, 32 – 44.
- Burroughs, A & Ashbourne, L. (1995). "Add sex and stir: homophobic coverage of women's cricket in Australia", Journal of Sport and Social Issues, Vol. 19 No. 3, pp. 266-84.
- Capranica, L. and Aversa, F. (2002). Italian Television Sport Coverage during the 2000 Sydney Olympic Games: A Gender Perspective. International Review for the Sociology of Sport, 37(3-4): 337 - 349.
- Capranica, L., Minganti, C., Billat, V., Hnghoj, S. (2005). Newspaper Coverage of Women's Sports During the 2000 Sydney Olympic Games: Belgium, Denmark, France and Italy. Research Quarterly for Exercise and Sport, 76 (2), 212 - 223.
- Coakley, J. J. (2009). Sport in Society : Issues and controversies. New York, N.Y.: McGraw-Hill.
- Crolley, L. and Teso, E. (2007). Gendered Narratives in Spain: The Representation of Female Athletes in Marca and El Pais. International Review for the Sociology of Sport. 42(2): 149
- DeFrantz, L. A.. (2000). Women's Participation in the Olympic Games: lessons and challenges for the future, Texts of presentations, 2ND IOC World Conference on Women and Sport – Final Report.
- Duncan, M. C. & Hasbrook, C.A. (1988). 'Denial of power in televised women's sports', Sociology of Sport Journal, 5: 1 – 21.

- Duncan, M. C., Messner, M.A., & Williams, W. (1990). Gender stereotyping in televised sports.(pp. 43 – 50). Los Angeles: The Amateur Athletic Association: Los Angeles.
- Dyer, R. (1993). The matter of images.: Essays on representation. London: Routledge.
- Gamson, W, A., & Modigliani, A. (1987). The changing culture of affirmative action. Research in Political Sociology, 3, 137 - 177.
- Eastman, S. and Billings, A. (1999). Gender Parity in the Olympics: Hyping Women Athletes, Favoring Men Athletes. Journal of Sport and Social Issues, 23: 140 - 170.
- Eastman, S. and Billings, A. (2000). Sportscasting and Sports Reporting: The Power of Gender Bias. Journal of Sport & Social Issues, Vol. 24, No. 2, 192-213
- Gerbner, G. (1977). Comparative cultural "Indicators". In G. Gerbner (Ed). Mass media policies in changing cultures. (pp 173 – 199). N.Y: Wiley Interscience.
- Hartley, A. (1996), "An investigation of the newspaper coverage devoted to female athletes", unpublished undergraduate thesis, Thames Valley University.
- Higgs, C.T., Weiller, K.H., & Martin, S.B. (2003). "Gender Bias in the 1996 Olympic Games: A comparative analysis", Journal of Sports and Social Issues , 27.1: 58.
- Higgs, C.T., & Weiller, K.H. (1994). Gender bias and the 1992 Summer Olympic Games :An analysis of television coverage. Sociology of Sport Journal, 18 , 234 – 246.
- International Olympic Committee: Department of communication. (2000). Olympic Review: Women and Sport.
- IOC World Conference on Women and Sport (2000). New Perspectives for the XXI Century - Final Report.
- IOC World Conference on Women and Sport (2005). New Perspectives for the XXI Century - Final Report.
- Kane, M. J.(1989). The post Title IX female athlete in the media: Things are changing but how much? Journal of Physical Education, Recreation and Dance, 60, (3), 58 - 62.
- Kane, M. J., & Snyder, E. E. (1989). Sport typing: The social "containment" of women in sport. Arena Review, 13, 77 – 96.
- Kane, M. J. & Greendorfer, S. L. (1994). 'The Media's Role in Accommodating and Resisting Stereotyped Images of Women in Sport', pp. 28- 44 in Creedon, P. J (ed.). Women Media and Sport – Challenging Gender Values. London : Sage.
- Lee, J. (1992), "Media portrayals of male and female-Olympic athletes", International Review for the Sociology of Sport, Vol. 3 No. 37, pp. 197-219.
- Lemish, D. (1998). Feminist look on the Israeli media. In Caspi. D. (Ed.) Media and democracy in Israel. Pp 119-139. Tel-Aviv: Van Leer & Kibutz Hameuchad pub.[Hebrew]
- Lemish, D. (2002). [Normalizing Inequality: Portrayals of Women in Israeli Media,] Journal of Israeli History, Vol 21,. 110–125.
- Lumpkin, A., & Williams, L. (1991). An analysis of Sports Illustrated feature articles 1954 – 1987. Sociology of Sport Journal, 8, 16 – 32.
- Messner, M., Duncan, M. and Cooky, C. (2003). Silence, Sports Bras, And Wrestling Porn: Women in Televised Sports News and Highlights Shows Journal of Sport and Social Issues. 27(1): 38 - 51.

- Pfister, G. (1989). 'Women in the Olympics (1952 – 1980): An Analysis of German Newspapers', pp. 11- 27, 11- 33, in *The Olympic Movement and the Mass Media*. Canada: Enterprises Ltd.
- Rintala, J., & Birrell, S.(1984). Fair treatment for the active female: A content analysis of young athlete magazine. Sociology of Sport Journal, 1, 231-250.
- Sabo, D., & Messner, M. A. (1993). Whose body is this? Women's sports and sexual politics. In G. L. Cohen (Ed.), *Women in sport. Issues and controversies*, pp. 15-24. London: Sage Publications.
- Salwen, M.B., & Wood, N. (1994). Depictions of female athletes on *Sports Illustrated* covers. Journal of sport Behavior, 17, 98 – 108
- Shifflett, B., & Revelle, R. (1994). Gender equity in sports and media coverage: A review of the News? Journal of Sport and Social Issues, 18, 144-150.
- Theberge, N. (1991). A content analysis of print media coverage of gender, women and physical activity. Journal of Applied Sport Psychology, 3, 36-48.
- Vincent, J. (2000). Cross national comparisons of print media coverage of female/male athletes in the Centennial Olympic Games in Atlanta, 1996. Unpublished doctoral dissertation, the Florida State University, Tallahassee, FL.
- TGI market survey (2006).
- Weiman, G. (2000). Gender and advertising: Women and men on TV commercial in Israel. Megamot (3) pp. 466-485. [Hebrew].