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Factors believed to be motivations responsible for sport fandom include eustress, self-esteem, escape, entertainment, economic, aesthetic, group affiliation, and family needs. However, these factors have been untested empirically, and a valid and reliable measure of sport fan motivation has been unavailable to researchers. The current two studies were an attempt to develop such a measure. The construction and validation of a 23-item Likert-scale measure, the Sport Fan Motivation Scale, are described. Discussion centers on possible uses for the instrument.

Although a large portion of the population is involved with sports as a spectator (one who is observing a sporting event) or a fan (one who is enthusiastic about a particular sport or athlete), relatively little empirical work has examined these persons (Thomas, 1986; Zillmann, Bryant, & Sapolsky, 1989). In fact, Wann and Hamlet (1995) found that only 4% of the research published in sport psychology and sociology journals focused on fans. Although scholarly activities targeting fans are rather rare, several researchers and theorists have presented hypotheses concerning the possible motivations of sports fans. Although the specific names given to these motives change from theorist to theorist, most can be categorized into one of eight types: eustress (i.e., positive levels of arousal), self-esteem benefits, escape from everyday life, entertainment, economic factors (i.e., gambling), aesthetic (i.e., artistic) qualities, group affiliation, and family needs.

Eustress is a commonly mentioned motivation for fans (Branscombe & Wann, 1994; Elias & Dunning, 1970; Sloan, 1989; Wenner & Gantz, 1989). For certain fans, sports are enjoyable because they arouse their senses and provide them with the stress they seek (Zuckerman, 1979). Another motivation is the need for self-esteem enhancement (Branscombe & Wann, 1994; Gantz, 1981; Sloan, 1989). Fans motived by this variable enjoy the pastime because it gives them a feeling of accomplishment and achievement when their team succeeds. In fact, fans are apt to increase their association with a successful team for this

very reason (Cialdini et al., 1976). It should be noted that the self-esteem benefits of sport fandom can be independent of team success and, rather, result from feelings of identification and belongingness (Branscombe & Wann, 1991).

Another hypothesized motivation of fans is their desire to find an escape or diversion from everyday life (McPherson, 1975; Sloan, 1989; Smith, 1988). As Smith (1988) noted, sport fans may be able to escape their "humdrum daily routines" (p. 58). A somewhat related motive is the fans' desire to be entertained (Gantz, 1981; Sloan, 1989; Zillmann et al., 1989). Here, sport spectating serves primarily as a pastime, not unlike a trip to the movies or an amusement park. As Zillmann et al. (1989) note, the entertainment advantages of sport spectating are important because, in contrast to sport participation, few if any special skills are required.

A fifth possible motive for fans is purely an economic one. Some theorists have predicted that certain fans are motived by the potential economic gains to be garnered through sports wagering (Chorbajian, 1978; Guttmann, 1986). These fans are often more interested in profits than standings, yet they still receive a great deal of enjoyment from being a sports fan. Another possible factor is the aesthetic value of the sporting event. To some fans, sporting events are seen as a form of art (Duncan, 1983; Guttmann, 1986; Sloan, 1989; Smith, 1988). As Smith (1988) reports, fans may be interested and moved by the "excellence, beauty, and creativity in an athlete's performance" (p. 58).

Fans may also be motivated by affiliation needs. For these persons, the desire to maintain group contacts and seek refuge from feelings of alienation are primary in their reasons for being a fan (Branscombe & Wann, 1991, 1994; Guttmann, 1986; McPherson, 1975; Sloan, 1989; Smith, 1988; Wenner & Gantz, 1989). A final and similar motive is exhibited by fans who participate in sports as a spectator to spend time with their families (Gantz, 1981; Guttmann, 1986).

Although the theorizing behind these possible motives appeared sound in terms of logic and practical experiences, research had yet to document empirically the motives and establish the relative importance of each. Further, a valid and reliable measure assessing these potential motives was unavailable to researchers. The current work was an attempt to develop such a measure, the Sport Fan Motivation Scale (SFMS). Although the terms "fan" and "spectator" are often considered interchangeable, the term "fan" was chosen in naming the scale because many behaviors and motives of fans occur beyond the bounds of the stadium and television (as noted above, spectating implies that the individual is observing a sporting event). Study 1 examined the factor structure of the SFMS as well as relationships between the SFMS and various demographic and sports involvement measures. Study 2 reviewed the test-retest reliability of the SFMS and the relationships between the SFMS and the enjoyment of watching various sports.

STUDY 1

METHOD

Subjects

A total of 272 subjects (100 male, 172 female; mean age 22.9 years) were tested. Most subjects ($n = 166$) were university students receiving course credit in exchange for participation. The remaining subjects ($n = 106$) were men and women associated with a recreational softball league. These subjects were included to broaden the demographics of the sample and increase the generalizability of the results. The majority of respondents were White (90%); fewer subjects were Black (7%) or Asian (3%). Only 1% of the subjects reported having less than a high school education, whereas 34% had achieved a high school degree but had not attended college. Most subjects reported attending college, with 49% completing some college course work without reaching a degree, 6% having attained a college diploma, and 10% completing courses in a graduate degree program.

Procedure

Respondents were tested in groups of 10 to 25. After signing a consent statement, the subjects completed a six-page questionnaire packet (described below). The packet required approximately 30 minutes to complete. After completing the packet, the subjects were debriefed, thanked for their participation, and excused from the testing session.

Materials

The questionnaire packet contained two sections. Section 1 included demographic questions and questions assessing the individuals' involvement with sports as a fan. For the demographic items, age, gender, race, education level, and household income were requested, as were the education levels of their parents. The educational-level questions asked subjects to place a mark next to one of six statements that best described their own, their father's, and their mother's educational experiences: (a) less than a high school degree, (b) high school degree, (c) some college but did not graduate, (d) college graduate, (e) college graduate with postgraduate work but no postgraduate degree, or (f) postgraduate degree. Subjects were also asked to state the numbers of brothers and sisters they had, their order of birth, and the approximate population of their home town. With regard to their involvement with sports,

participants were asked to state how much they considered themselves to be a sports fan and how much they considered their mother, father, and friends to be sports fans. Answers to these items ranged from "not at all a sports fan" (1) to "very much a sports fan" (8). Also, subjects completed the Sport Spectator Identification Scale (SSIS). This scale contains seven Likert-scale items in which higher numbers represent greater levels of identification. Past research has demonstrated the strong validity and reliability of this instrument (Wann & Branscombe, 1993).

The second section contained 38 items designed to assess one of eight different motivations for involvement as a sports fan (see Appendix). The dimensions were: eustress, self-esteem, escape, entertainment, economic, aesthetic, group affiliation, and family reasons. All items were in Likert-scale format, with responses ranging from "this is not at all descriptive of me" (1) to "this is very descriptive of me" (8). The number of items per dimension ranged from two to six.

RESULTS

Preliminary Analyses (Exploratory Factor Analysis)

To reduce the number of items to two or three per subscale, a preliminary exploratory factor analysis was conducted on the original set of items. This procedure is a standard method of tightening a scale by eliminating poorer items and thus producing a more reliable and manageable instrument (Tabachnick & Fidell, 1989). The factor analysis (principle components with rotation) produced seven factors. The escape, entertainment, economic, aesthetic, group affiliation, and family subscales loaded on separate factors. The items representing the eustress and self-esteem subscales loaded on the same factor. For the eustress, self-esteem, escape, entertainment, economic, aesthetic, and group affiliation subscales, the three items with the highest loadings on their factor were included in the final scale. Three items were chosen because this allowed a more manageable scale and ensured that all factor loadings were well above acceptable limits (Comrey, 1973). There were only two items composing the family subscale, and both items were added to the final scale. Thus the final scale consisted of 23 items reflecting eight dimensions of fan motivation.

Primary Analyses (Confirmatory Factor Analysis)

Responses to the remaining 23 items were examined using confirmatory factor analysis, as is appropriate for research on questionnaire construction (Schutz & Gessaroli, 1993). This analysis, conducted using the EQS structural equation modeling program (Bentler, 1989), was an attempt to fit the data to

the hypothesized eight-factor model. Although the exploratory analysis suggested a seven-factor model, the a priori theorizing of the hypothesized eight-factor version makes such an analysis appropriate.

The confirmatory factor analysis found that the data fit the model extremely well [comparative fit index = .995, $\chi^2(202) = 330.9$], indicating the appropriateness of the eight-factor model. Factor loadings appear in Table 1. Two other models were also tested. First, a model involving only one factor was tested, with $\chi^2(230) = 711.8$ (i.e., all 23 items were loaded onto a single factor). A comparison of the eight-factor model and the one-factor version indicated that the eight-factor model was a significantly better fit (i.e., accounted for a greater amount of variance): $\chi^2(28) = 380.9$, $p < .0001$. Next, a seven-factor model was examined. This model was tested to ensure that the eight-factor model was more appropriate, because the exploratory factor analysis had found that items composing the eustress and self-esteem subscales loaded on the same factor. This seven-factor model [$\chi^2(209) = 403.5$] gave a significantly poorer fit with the data than the eight-factor model: $\chi^2(7) = 72.6$, $p < .0001$. Thus, it was apparent that the most appropriate design of the SFMS was indeed the version incorporating the eight hypothesized dimensions.

As for the internal consistency of the total SFMS and the eight subscales, Cronbach's reliability alpha for the entire scale was .90, while subscale alphas were also quite high: .89 (eustress), .78 (self-esteem), .85 (escape), .85 (entertainment), .84 (economic), .81 (aesthetic), .72 (group affiliation), and .63 (family). The total SFMS mean was 85.23 ($SD = 28.34$), and scores ranged from a low of 23 to a high of 160. The skewness of the scale was –.277, indicating that the scores were normally distributed (Glass & Hopkins, 1984). The kurtosis was –.476. As for the subscales, the highest level of motivation was found on the entertainment subscale ($M = 17.49$, $SD = 5.88$), whereas the lowest reported level was for the economic subscale ($M = 4.49$, $SD = 3.06$). Means and standard deviations for all eight subscales appear in Table 2. Correlations among the total SFMS and subscales appear in Table 3. Gender differences (see Table 2) were found on the total SFMS and six subscales. On the total SFMS and the eustress, self-esteem, escape, entertainment, and aesthetic subscales, men scored significantly higher than women. However, women exhibited higher levels of motivation on the family subscale (all $ps < .05$).

Supplemental Analyses (Correlational Analyses)

The SFMS and subscales were correlated with the demographic and sports questions for two reasons (see Table 4). First, correlations between the SFMS and variables such as level of identification and degree of self-reported fanship were used to help establish the criterion validity of the instrument.

TABLE 1
Questions and Factor Loadings for the 23-Item Sport Fan Motivation Scale

Item Number and Question	Subscale							
	EU	SE	ES	EN	EC	AE	GA	FA
3. One of the main reasons that I watch, read, and/or discuss sports is that I get pumped up when I am watching my favorite teams.	.916							
6. One of the main reasons that I watch, read, and/or discuss sports is that I enjoy being physiologically aroused by the competition.	.868							
18. I like the stimulation I get from watching sports.	.867							
8. One of the main reasons that I watch, read, and/or discuss sports is that doing so makes me feel good when my team wins.		.898						
17. I enjoy watching sports because it increases my self-esteem.		.762						
21. To me, my favorite team's successes are my successes and their losses are my losses.		.809						
1. One of the main reasons that I watch, read, and/or discuss sports is that doing so gives me the opportunity to temporarily escape life's problems.			.789					
9. One of the main reasons that I watch, read, and/or discuss sports is that doing so allows me to forget about my problems.			.868					
13. To me, watching, reading, and/or discussing sports is like daydreaming because it takes me away from life's hassles.			.857					
15. I enjoy sports because of their entertainment value.				.854				
19. I enjoy watching, reading, and/or discussing sports simply because it is a good time.				.908				

(continued)

TABLE 1 Continued

Item Number and Question	Subscale							
	EU	SE	ES	EN	EC	AE	GA	FA
20. To me, sports spectating is simply a form of recreation.				.726				
2. One of the main reasons that I watch, read, and/or discuss sports is so I can bet on the sporting events.					.714			
7. Sports are enjoyable only if you can bet on the outcome.					.766			
10. Making wagers is the most enjoyable aspect of being a sports fan.					.922			
4. One of the main reasons that I watch, read, and/or discuss sports is for the artistic value.						.662		
5. One of the main reasons that I watch, read, and/or discuss sports is that I enjoy the beauty and grace of sports.						.743		
12. I enjoy watching sporting events because to me sports are a form of art.						.893		
11. One of the main reasons that I watch, read, and/or discuss sports is because most of my friends are sports fans.							.613	
14. One of the main reasons that I watch, read, and/or discuss sports is I am the kind of person who likes to be with other people.							.856	
16. I enjoy watching sports more when I am with a large group of people.							.641	
22. I like to watch, read, and/or discuss sports because doing so gives me an opportunity to be with my spouse.								.479
23. I like to watch, read, and/or discuss sports because doing so gives me an opportunity to be with my family.								.992

Note: EU = eustress; SE = self-esteem; ES = escape; EN = entertainment; EC = economic; AE = aesthetic; GA = group affiliation; FA = family.

TABLE 2
Means and Standard Deviations for the Total Sport Fan Motivation Scale (SFMS) and the Eight Subscales for Men, Women, and All Subjects

	Men		Women		All Subjects	
Scale	M	SD	M	SD	M	SD
Eustress[a]	16.62	5.69	13.23	6.66	14.46	6.54
Self-esteem[a]	12.62	5.67	10.88	5.71	11.52	5.77
Escape[a]	9.83	5.75	7.74	5.23	8.50	5.51
Entertainment[a]	18.45	4.95	16.93	6.31	17.49	5.88
Economic	4.65	3.21	4.40	2.99	4.49	3.06
Aesthetics[a]	12.57	6.03	9.02	5.22	10.31	5.77
Group affiliation	12.29	5.64	13.03	5.67	12.76	5.66
Family[b]	4.52	2.99	6.36	4.28	5.69	3.96
Total scale[a]	91.54	25.91	81.59	29.10	85.23	28.34

Note: The family subscale contained two items, whereas the other seven subscales contained three items.

a. Indicates a significant gender effect in which men scored higher than women.

b. Indicates a significant gender effect in which women scored higher than men.

TABLE 3
Correlations Among the Total Sport Fan Motivation Scale (SFMS) and the Eight Subscales

	Subscale								
Subscale	TS	EU	SE	ES	EN	EC	AE	GA	FA
Total scale	—								
Eustress	.80*	—							
Self-esteem	.84*	.72*	—						
Escape	.69*	.41*	.51*	—					
Entertainment	.75*	.63*	.55*	.41*	—				
Economic	.29*	.12	.15*	.12	.07	—			
Aesthetics	.64*	.50*	.47*	.37*	.40*	.15*	—		
Group affiliation	.69*	.37*	.52*	.45*	.48*	.21*	.19*	—	
Family	.40*	.12	.30*	.23*	.18*	.07	.09	.32*	—

Note: TS = total SFMS; EU = eustress; SE = self-esteem; ES = escape; EN = entertainment; EC = economic; AE = aesthetic; GA = group affiliation; FA = family.

*Correlation was significant at the .01 alpha level (the more conservative .01 level was set because of the large number of analyses as well as the high *N*).

Second, correlations with demographic variables such as age and education level were used to explore the relationships between fan motivations and these variables. This would indicate whether the scale was unusually sensitive to a

TABLE 4
Correlations Between the Total Sport Fan Motivation Scale (SFMS) and Subscales and the Sport Involvement and Demographic Information

	Subscale								
Item	TS	EU	SE	ES	EN	EC	AE	GA	FA
Sport involvement	.70*	.69*	.59*	.36*	.65*	.06	.42*	.36*	.17*
Self-reported sports fan									
Degree father is sports fan	.28*	.27*	.25*	.15*	.23*	.01	.13	.24*	.14*
Degree mother is sports fan	.29*	.30*	.28*	.11	.32*	–.04	.18*	.13	.13
Degree friends are sports fans	.55*	.53*	.45*	.34*	.46*	.14*	.34*	.39*	.11
Identification level (SSIS)	.69*	.71*	.71*	.34*	.60*	.14*	.35*	.37*	.20*
Demographics									
Age	–.08	–.13	–.12	–.04	–.07	.00	.05	–.18*	.15*
Income (own or parents)	.08	.06	.03	.01	.06	.04	–.02	.16*	.10
Education level	–.13	–.17*	–.15*	–.10	–.07	–.04	–.09	–.04	.05
Father's education level	–.08	–.11	–.09	.00	–.08	–.08	–.08	.04	.01
Mother's education level	–.03	–.08	–.07	.02	–.04	–.09	–.03	.10	.01
Number of brothers	.03	.04	.03	.00	.03	.04	–.01	–.04	.10
Number of sisters	–.01	–.05	–.01	.02	–.06	–.01	.05	–.01	.05
Birth order	.09	.02	.10	.06	.09	.03	.04	.03	.12
Home town population	–.05	–.12	–.03	.00	–.05	.04	.03	–.08	.01

Note: TS = total SFMS; EU = eustress; SE = self-esteem; ES = escape; EN = entertainment; EC = economic; AE = aesthetic; GA = group affiliation; FA = family; SSIS = Sport Spectator Identification Scale. For the income (n = 258) and home town population (n = 261) demographic items, ns were less than 271, reflecting the fact that a few subjects did not answer one or more of these items.
*Correlation was significant at the .01 alpha level.

specific population. For all correlational analyses, the alpha level was set at a conservative $p < .01$ because of the sample size and number of analyses computed.

Regarding the sports involvement questions, Table 4 reveals a highly consistent pattern of effects, as higher scores on the total SFMS and the subscales corresponded with higher levels of involvement as a fan. The overall SFMS was positively and significantly correlated with each measure of involvement, thus establishing the validity of the scale. The correlations between the subscales and the involvement items also supported the validity of the instrument. Only the economic subscale failed to be significantly related to at least half of the involvement items.

As for the demographic items and their relationships with the SFMS, few significant correlations emerged and no reliable correlations involved the total SFMS measure. As for the subscales, age was negatively correlated with the group-affiliation subscale and positively related to the family subscale. Income was positively correlated with the group-affiliation subscale. Finally, education level was negatively correlated with the eustress and self-esteem subscales.

DISCUSSION

The results of the confirmatory factor analysis indicated that the Sport Fan Motivation Scale is a normally distributed instrument containing eight factors. The internal consistency analyses (i.e., Cronbach's alpha) were a testament to the strong psychometric properties of the SFMS. Finally, several gender differences were found, the majority of which (including the analysis of the total SFMS) showed that men scored higher than women.

The supplemental correlational analyses on the involvement items consistently found positive relationships between these items and the SFMS. Thus, an important step in demonstrating the predictive validity of the instrument was accomplished. With regard to establishing the validity of the motivation measure, an interesting finding was revealed. The economic subscale was significantly related to fewer than half of the involvement measures, and those correlations reaching statistical reliability were quite modest. Apparently, although gambling is an independent dimension as a motivation for being a fan (as seen in the confirmatory factor analysis), it is primarily unrelated to other involvement issues. This result seems to indicate that persons for whom the motivation of gambling is a significant factor do not become involved with the teams and/or sports, especially in light of the lack of a significant correlation between the economic subscale and the degree to which the individual was a self-reported sports fan.

Correlations between the SFMS and demographic items revealed few significant findings. It should be noted that the total SFMS scores were not correlated with any of the demographic measures. Thus the SFMS is not

dependent on or unequally sensitive to any specific population. A few significant relationships did emerge involving the demographic items and the subscales. Age was negatively correlated with the group-affiliation subscale and positively related to the family subscale. Also, income was positively correlated with the group-affiliation subscale. Finally, education level was negatively correlated with the eustress and self-esteem subscales. Because these relationships were not hypothesized and were modest in magnitude, replication was needed to substantiate their existence (this was accomplished in Study 2).

STUDY 2

Study 1 indicated that the SFMS is an internally consistent, normally distributed scale containing eight dimensions. The validity of the instrument was established through relationships between the SFMS and measures of fan involvement. A second study was conducted to examine the test-retest reliability of the scale. In addition, this study investigated the relationships between the subscales and enjoyment of different sports. Study 2 was also used to replicate Study 1 in terms of the relationships between the SFMS and the demographic items. Because of the large number of subjects and analyses conducted, and because the significant correlations were quite small (all $rs < .20$), it appeared possible that these relationships would not withstand replication. If any or all of the relationships were replicated, greater credibility could be given to their actual (as opposed to artifactual) existence.

METHOD

Subjects

Undergraduate psychology students (79 male, 65 female; mean age 23.0 years) participated in the pretest session, receiving course credit in exchange for their participation. The large majority of participants were White (92%); the remaining subjects were Black (6%) or Asian (2%). For the reliability analysis (see below), 138 of these original subjects were contacted and retested 2 months after the initial test administration.

Procedure

Subjects were tested in groups of 20 to 50. After signing a consent statement, the subjects completed a four-page questionnaire packet (described below), requiring approximately 15 minutes to complete. When finished, the subjects were debriefed and excused.

Materials

The packet was divided into three sections. Section 1 contained demographic items identical to those used in Study 1. The second portion contained the 23-item SFMS, established in Study 1. These items were again structured using a Likert-scale format in which responses ranged from "this is not at all descriptive of me" (1) to "this is very descriptive of me" (8). The third section asked subjects to rate the extent to which they liked to watch 13 different sports: baseball, basketball, football, hockey, track and field, swimming, professional wrestling, auto racing, golf, fishing, horse racing, tennis, and boxing. Subjects rated these sports on a Likert scale ranging from "I definitely do not like to watch this sport" (1) to "I definitely do like to watch this sport" (8). The sports were selected because of their popularity and because they allowed a wide sample of sport fan experiences.

RESULTS

Scale Analyses

The SFMS was again examined using confirmatory factor analyses on the Time 1 SFMS scores (this analysis was not performed on the Time 2 scores because the high test-retest reliability reported below made such an analysis redundant). This analysis found that the eight-factor model was an exceptional fit with the data [comparative fit index = .999, $\chi^2(202) = 229.5$], thus replicating Study 1. Cronbach's reliability alpha for the entire scale was again .90 for both Time 1 and Time 2. The subscale alphas were again encouraging, ranging from a low of .59 (family, Time 1) to .94 (economic, Time 2). Of the 16 subscale internal consistency analyses, 14 of 16 were greater than .70 and 10 of 16 were greater than .80. As for distribution statistics, the Time 1 total SFMS mean was 89.05 (SD = 26.03), and scores ranged from a low of 26 to a high of 153. The skewness of the scale was –.338, while the kurtosis was .091. The Time 2 mean was 94.25 (SD = 25.48), and scores ranged from a low of 28 to a high of 151. The Time 2 skewness was –.526 and the kurtosis was .162.

The highest level of motivation was found on the entertainment subscale, both at Time 1 (M = 17.78, SD = 5.62) and Time 2 (M = 17.96, SD = 5.12). Also consistent with Study 1, the lowest levels of motivation were found on the economic subscale (Time 1 M = 4.43, SD = 2.94; Time 2 M = 4.94, SD = 3.78). Subscale correlations were again all positive. Gender differences were examined for the Time 1 scores. Consistent with Study 1, significant differences were found on the total SFMS and six of the subscales. On the total SFMS and the eustress, self-esteem, escape, entertainment, and aesthetic subscales, men

TABLE 5
Correlations Between the Total Sport Fan Motivation Scale (SFMS) and Subscales and Enjoyment for Watching Various Sports

	Subscale								
Sport	TS	EU	SE	ES	EN	EC	AE	GA	FA
Baseball	.32*	.24*	.22*	.20*	.32*	.17	.27*	.16	.03
Basketball	.43*	.35*	.35*	.19*	.44*	.12	.29*	.25*	.21*
Football	.49*	.45*	.46*	.25*	.55*	.20*	.28*	.24*	–.01
Hockey	.19*	.20*	.15	.02	.20*	.24*	.13	.10	–.03
Track and field	.18	.16	.14	.10	.16	–.02	.21*	.01	.11
Swimming	.02	–.03	–.07	–.12	–.02	.08	.09	.11	.21*
Professional wrestling	.18	.10	.20*	.08	.19*	.31*	.03	.13	–.07
Auto racing	.26*	.20*	.31*	.11	.16	.28*	.27*	.08	–.03
Golf	.44*	.37*	.35*	.31*	.32*	.28*	.41*	.10	.08
Fishing	.19*	.15	.21*	.21*	.13	.20*	.18	–.15	.04
Horse racing	.21*	.17	.11	.04	.22*	.19*	.16	.15	.11
Tennis	.30*	.25*	.22*	.15	.14	.23*	.21*	.24*	.01
Boxing	.28*	.29*	.28*	.11	.34*	.25*	.30*	–.01	–.14

Note: TS = total SFMS; EU = eustress; SE = self-esteem; ES = escape; EN = entertainment; EC = economic; AE = aesthetic; GA = group affiliation; FA = family.
*Correlation was significant at the .01 alpha level.

scored significantly higher than women, whereas women exhibited higher levels of motivation on the family subscale (all $ps < .05$).

Demographic Items

Correlating responses to the demographic items with the total SFMS and subscale scores, as done in Study 1, revealed only two significant relationships (alpha level = .01). Age was negatively correlated with the group-affiliation subscale: $r(142) = -.23$, $p < .01$. This finding replicates Study 1. The other significant correlation involved income, which was positively correlated with the economic subscale: $r(142) = .24$, $p < .01$. This finding was not found in Study 1. The other four significant relationships revealed in Study 1 were not replicated.

Enjoyment Analyses

Correlations between the total SFMS, as well as the eight subscales, and subjects' reported enjoyment for watching the 13 target sports appear in Table 5.

The entire SFMS was positively correlated with each sport, significantly for 10 of the 13 sports. In general, the subscales were also positively correlated with each sport, with many relationships reaching statistical reliability. Specifically, several interesting trends were revealed by this analysis. These trends are discussed in detail below.

Test-Retest Analyses

To examine the test-retest reliability of the SFMS and its subscales, correlations were computed between the Time 1 and Time 2 administrations. The total SFMS scores from Times 1 and 2 showed a high level of consistency: $r(136) = .80, p < .0001$. Scores on the eight subscales were similarly consistent: eustress (.79), self-esteem (.80), escape (.62), entertainment (.68), economic (.77), aesthetic (.71), group affiliation (.72), and family (.60). All subscale correlations were significant at the .0001 level.

DISCUSSION

The results of Study 2 confirmed that the SFMS is an eight-factor scale. Further, the gender differences and subscale values were also replicated. Study 2 also demonstrated the strong reliability of the instrument, as the test-retest correlations were highly significant. Thus, Study 1 and Study 2 have shown that the SFMS is an internally consistent, reliable, and valid measure of eight different motives of sport fans. As for the relationships between the demographic items and the SFMS subscales, only one finding was replicated: Age was negatively related to group affiliation. Apparently, older fans are less motivated by the social nature of sport fandom.

Correlations between the subscales and enjoyment for watching the 13 target sports revealed several interesting patterns, most of which established the validity of the SFMS. The family subscale was related only to enjoyment of basketball and swimming. The swimming finding seems reasonable because this tends to be a family activity. The relationship with basketball, when no such relationship was found for similar sports such as baseball or football, seems more puzzling. Yet, in light of the fact that the subjects attended a university with a highly successful basketball team, this finding may be reasonable. That is, because of the success of the team, families may have viewed basketball spectating as a family gathering. Given that a significant correlation emerged between basketball and the group-affiliation subscale, this hypothesis seems viable. This explanation for the relationship between basketball and family needs is purely speculative at this point, however, and further research is needed to replicate this finding.

Another interesting finding was that enjoyment of watching the staged sport, professional wrestling, was related to only three of the subscales: self-esteem, entertainment, and economic. With regard to self-esteem, as Stone (1971) noted, fans often become wrapped up in the good guy/bad guy scenarios played out in the matches. Possibly, it is this identification with the good-guy (i.e., in-group) wrestlers that serves as a boost to self-esteem. As such, increases in self-worth serve as a primary motivation for professional wrestling fans. The entertainment relationship appears to validate the SFMS further as this seems to be an obvious motive of wrestling fans, many of whom admit that the outcomes are fixed (Stone, 1971). The economic relationship was rather surprising, as professional wrestling is not commonly considered a betting sport. In all likelihood, this relationship indicates that fans of professional wrestling tend to place bets on a variety of sporting events.

Two more findings warrant mention. First, enjoyment for watching the violent sports (hockey, professional wrestling, and boxing) was not related to the escape subscale. Evidently, such sports offer little relief from the strains of everyday life in comparison with less aggressive sports. And second, enjoyment for watching horse racing was significantly related only to the entertainment and economic subscales. This is yet another indication of the validity of the SFMS. Apparently, persons expressing enjoyment of horse racing are primarily motivated by the entertainment and potential economic gains provided by this sport.

GENERAL DISCUSSION

Studies 1 and 2 demonstrated the psychometric properties of the Sport Fan Motivation Scale. The SFMS was found to be internally consistent and normally distributed, to contain eight subscales, and to possess strong test-retest reliability and criterion validity. Thus, the SFMS seems appropriate for research on the psychology of the sports fan. The addition of measures aimed at fans is important because although the number of sport-specific inventories is increasing (Gauvin & Russell, 1993), very few focus on fans. In fact, although Ostrow's (1990) directory of sport-specific tests lists more than 150 instruments, only one scale targets fans. Below, several potential uses for the scale are suggested. This is not intended to be an exhaustive list, but simply a presentation of the types of research that could benefit from the SFMS.

First, this scale could be used in research investigating fan violence. Many theories of fan aggression have been offered (e.g., Branscombe & Wann, 1992; Simons & Taylor, 1992), and several theories discuss the potential motivations of violent fans. The SFMS may be able to shed light on the most common motives. Second, this scale may provide information concerning fan enjoyment, a topic of interest to many researchers (e.g., Zillmann et al., 1989). For

example, subjects motivated by eustress and possibly entertainment may not enjoy games that are lopsided, preferring instead close and exciting contests. Conversely, the enjoyment of fans scoring high on the aesthetics, group-affiliation, and family subscales may be less concerned about the score. A final area that should incorporate the SFMS concerns the biased attributions of sports fans, long a topic of research in sport psychology (e.g., Hastorf & Cantril, 1954; Mann, 1974; Wann & Dolan, 1994a, 1994b). It seems quite possible that persons primarily motivated by self-esteem needs would be especially likely to report biased attributions concerning the team's performance.

In conclusion, it should be reiterated that this was a very preliminary attempt to validate the SFMS. As such, three important points warrant mentioning. First, because the samples in the present research were somewhat homogeneous, future work is needed to validate the SFMS using other samples. For example, fans from different races and nationalities should be tested before generalizing the present statistics. Also, age groups such as children and the elderly should be tested. Test validation with these age groups is necessary to ensure that the current set of items can be understood easily by these populations. It is possible that these groups may emphasize specific motivations to a greater or lesser degree than did the current sample. Second, because the data in the current studies were collected using a questionnaire format, future work is needed to document the reliability and validity of the scale through other research techniques, such as telephone interviews. Finally, because research has found that fans of different sports report a different set of motivations (Wenner & Gantz, 1989), future research should determine the extent to which scores on the SFMS vary by sport type.

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APPENDIX

ORIGINAL SET OF INSTRUCTIONS AND SCALE ITEMS

Instructions: Please answer EACH of the following questions about sports spectating using the 1 to 8 scale below. In the space next to each item, simply indicate (by writing a number) how well each item describes you. There are no right or wrong answers, we simply ask that you be completely honest in

your responses. Remember, these questions are about sports spectating, not sports participation.

THIS IS NOT AT ALL DESCRIPTIVE OF ME	1	2	3	4	5	6	7	8	THIS IS VERY DESCRIPTIVE OF ME

1. One of the main reasons that I watch, read, and/or discuss sports is that doing so gives me the opportunity to temporarily escape life's problems.
2. One of the main reasons that I watch, read, and/or discuss sports is that doing so makes me feel as though I am a better person.
3. One of the main reasons that I watch, read, and/or discuss sports is that doing so allows me to belong to various groups.
4. One of the main reasons that I watch, read, and/or discuss sports is so I can bet on the sporting events.
5. One of the main reasons that I watch, read, and/or discuss sports is that I get pumped up when I am watching my favorite teams.
6. One of the main reasons that I watch, read, and/or discuss sports is for the artistic value.
7. I tend to like sports such as professional wrestling, roller derby, and motor cross.
8. One of the main reasons that I watch, read, and/or discuss sports is that I enjoy the beauty and grace of sports.
9. One of the main reasons that I watch, read, and/or discuss sports is that I enjoy being physiologically aroused by the competition.
10. Sports are enjoyable only if you can bet on the outcome.
11. One of the main reasons that I watch, read, and/or discuss sports is that I like the group affiliations I get from sports.
12. I tend to prefer sports like football, boxing, and horse racing more than sports such as track and field or golf because with sports such as football, boxing, and horse racing it is easier to bet on the contest.
13. One of the main reasons that I watch, read, and/or discuss sports is that doing so makes me feel good when my team wins.
14. One of the main reasons that I watch, read, and/or discuss sports is that doing so allows me to forget about my problems.
15. I tend to like sports such as figure skating, gymnastics, and synchronized swimming.
16. I tend to watch, read, and/or discuss sports because I enjoy the stress I feel when doing so.
17. Making wagers is the most enjoyable aspect of being a sports fan.
18. To me, watching sports is very similar to watching a play or a movie.

Appendix continues

Appendix Continued

19. One of the main reasons that I watch, read, and/or discuss sports is because most of my friends are sports fans.
20. One of the main reasons that I watch, read, or discuss sports is that when my team achieves something I feel as though I have achieved something.
21. I enjoy watching sporting events because to me sports are a form of art.
22. To me, watching, reading, and/or discussing sports is like daydreaming because it takes me away from life's hassles.
23. One of the main reasons that I watch, read, and/or discuss sports is I am the kind of person who likes to be with other people.
24. I enjoy sports because of their entertainment value.
25. I enjoy the feelings of tension and anxiety I experience when my favorite teams are competing.
26. I enjoy watching elite athletes perform in the same way I like to watch other great artists such as musicians, dancers, actors, and actresses.
27. I get bored watching sporting events if I don't have a bet riding on the game.
28. Watching sports at the end of the day helps me wind down, relax, and forget about work for awhile.
29. I enjoy watching sports more when I am with a large group of people.
30. For me, sports serve as a diversion form the rest of my life.
31. I enjoy watching sports because it increases my self-esteem.
32. I like the stimulation I get from watching sports.
33. I enjoy watching, reading, and/or discussing sports simply because it is a good time.
34. To me, sports spectating is simply a form of recreation.
35. To me, my favorite team's successes are my successes and their losses are my losses.
36. I like to watch, read, and/or discuss sports because doing so gives me an opportunity to be with my spouse.
37. I like to watch, read, and/or discuss sports because doing so gives me an opportunity to be with my family.
38. I like to watch, read, and/or discuss sports simply because it is a fun thing to do.

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