Articles

Cognitive and Affective Determinants of Fan Satisfaction with Sporting Event Attendance

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The current study proposes and tests a structural model of fan satisfaction with attending a sporting event. Specifically, three cognitive antecedents (expectancy disconfirmation, team identification, quality of opponent) are related to two affective states (enjoyment, basking in reflected glory) which are, in turn, related directly to satisfaction judgments in a recursive model. Two-stage sampling was used to collect data from 232 individuals attending one of four women's basketball games at a major Division I-A university. The hypothesized model performed better than two alternative models and was further refined through a series of hierarchical model comparisons. The final model is supportive of a disconfirmation-affect-satisfaction hierarchy. In particular, team identification was found to have the dominant influence on affect and enjoyment had the dominant influence on fan satisfaction.

KEYWORDS: *Fan satisfaction, expectancy disconfirmation, opponent quality, team identification*

Watching competitive sports is a leisure behavior engaged in by millions around the world. Sports fanship is an especially pervasive phenomenon in the United States. A recent survey collecting data from a representative national sample indicated that 73 percent of the respondents were either "very interested" or "fairly interested" in watching sports (Lieberman, 1991). Attendance at professional baseball, basketball, hockey and football games in 1991 totaled nearly 106 million (a 6 percent increase over 1984), while attendance at college football, basketball (men's and women's) exceeded 74 million (up 33 percent from 1984; U.S. Census Bureau, 1993). Further evidence of spectators' increasing involvement with sport can be found in media time allotted to sport programming. In 1960, the three major networks broadcast a total of 300 hours of sport programming (Lardner, 1982), by 1988 that figure rose to over 1800 hours (Wenner, 1989). This 500 percent increase is even more dramatic when one considers that it does not include the Entertainment and Sports Programming Network (ESPN) which broadcasts sports programming 24 hours a day or other cable superstations that

rely heavily on sports broadcasting. Clearly, the advertisers sponsoring such programming recognize the widespread appeal of sports in this country.

The principal appeal for watching sporting events may be the unique nature of athletic competition. Unlike more predictable forms of leisure behavior, sporting events represent a finite experience in which outcomes are unknown prior to the commencement of the competition. As such, sporting events represent a hedonic experience in which the event itself elicits a sense of drama and attendant outcomes yield cognitions about the performance as well as affective reactions (Hirt, Zillmann, Erickson, and Kennedy, 1992; Sloan, 1989; Wann and Branscombe, 1992). Research suggests that the type and extent of cognitions and emotions that one is likely to experience as a result of watching an athletic competition is dependent upon the individual's disposition toward the team or its participants (Zillmann, Bryant, & Sapolsky, 1989). In fact, Zillmann and Paulus (1993) argued that the defining characteristic separating fans from mere spectators is the formation of alliances whereby fans "perceive themselves as members of a tacitly existing group to which the objects of their fanship belong" (p. 604).

A satisfactory experience resulting from attending sporting events would appear to be an important predictor of a fan's likelihood of attending future events. Although the notion of satisfaction as it pertains to consumer behavior in general has received a great deal of attention in recent years, virtually no work has been done on the construct as it relates to the passive consumption of competitive sports by fans. Recently, an emerging stream of research has looked at the influence of affective reactions to consumption experiences on postpurchase satisfaction judgments (Mano & Oliver, 1993; Oliver, 1993; Westbrook, 1987; Westbrook & Oliver, 1991). The underlying assumption of these studies is that individuals who experience positive affect as a result of the consumption experience are more likely to engage in repurchase and repatronage activity. In addition, consumer satisfaction acts as a motivator of word-of-mouth communications, and serves as a diagnostic tool for management decisions (Oliver, 1994).

In spite of its role as a predominant leisure behavior in American culture, little is known about the effect of fans' cognitions and affective reactions to game outcomes on summary judgments of postconsumption satisfaction. An especially interesting affective reaction specific to sports spectating that has received considerable attention, however, is the Basking In Reflected Glory phenomenon (BIRG; Cialdini, Borden, Thorne, Walker, Freeman, & Sloan, 1976) and its corollary, Cutting Off Reflected Failure (CORF; Snyder, Lassegard & Ford, 1986). As explained by Heider's (1958) balance theory, the BIRG response is an ego-enhancement technique whereby individuals raise their esteem in the eyes of others by increasing their association or connection with highly successful others. In contrast, the CORF response is an ego-protection technique in which there is a desire to distance one's self from an unattractive source. The tendency to BIRG or CORF may help to explain the behavior of "fair-weather" fans who are less likely to attend games when the team is losing, as well as the positive rela-

tionship between attendance and a team's winning percentage that has consistently been reported in the research (Baade & Tiehen, 1990; Becker & Suls, 1983; Whitney, 1988).

The current study is concerned with how sports fans process cognitions and affective reactions related to the outcomes of competitive contests into summary form that later influence satisfaction judgments regarding attendance of the sporting event. A structural model is proposed that examines the direct effects of three cognitive antecedents on fans' tendency to BIRG and their level of enjoyment as a result of watching the game and, in turn, the direct effects of basking and enjoyment on satisfaction. The three cognitive antecedents hypothesized to influence the BIRG response and enjoyment are expectancy disconfirmation, fans' identification with the team (i.e., team identification), and the quality of the opponent. In addition, given the lack of theoretical development in this area, two competing models are compared to the hypothesized model.

The Basking in Reflected Glory Phenomenon

Basking in reflected glory refers to an individual's inclination to "share in the glory of a successful other with whom they are in some way associated" (Cialdini et al, 1976, p. 366). Central to the BIRG effect is one's desire to increase an association with a successful other, such as a sports team, even though the connection is relatively trivial or seemingly incidental. The behavioral manifestation of an increased association may take the form of wearing clothing that features the team's logo or extolling the virtues of the team to others. The distinction between the public and private nature of the BIRG phenomenon is important to recognize in the present study. Cialdini et al. note that although the perceived esteem of others is an important interpersonal mediator of the BIRG effect, individuals may also BIRG privately. "That is, for wholly intrapersonal reasons, people may draw connections between themselves and positive sources" (p. 375). Thus, the essential nature of the BIRG effect is the desire to increase one's association with a successful other, not necessarily the public exhibition of the unit formation.

Although never formally recognizing the tendency to BIRG as such, the literature seems to suggest that the phenomenon has many affect-like qualities. For example, Wann and Branscombe (1990) operationalized the BIRG phenomenon as the fan's sense of enjoyment derived from following a team when it is winning versus when it is losing. Similarly, Hirt et al. (1992) also implied that the BIRG effect had a strong affective dimension. Given that perceptions of the BIRG effect may be viewed along a hedonic continuum, a fundamental question arises as to whether basking in reflected glory and affect are theoretically distinct constructs. Cialdini et al.'s (1976) original conceptualization of basking as an individual's cognitive choice to increase or decrease an association, or unit formation, with a successful other as the result of the favorability of some event outcome (e.g., a team's victory or loss) seems to suggest the basking may also be conceptualized as an attitude.

Cohen and Areni (1991) have argued that attitudes are different from affect in that the former is an evaluative judgment, whereas the latter is a valenced feeling state. This is consistent with Eagly and Chaiken (1993) who defined an attitude as a "psychological tendency that is expressed by evaluating a particular entity with some degree of favor of disfavor" (p. 1).

Although affect is also concerned with events as causal agents for activation, affective states are not the result of cognitive choice. Rather, affect may be thought of "as a superordinate construct that encompasses emotions and relatively transient moods and feelings" (Petty, Cacioppo, Sedikides, & Strathman, 1988, p. 357). Westbrook (1987) also defined affect in broader terms as "a class of mental phenomena uniquely characterized by a consciously experienced, subjective feeling state, commonly accompanying emotions and moods" (p. 259). Research has consistently shown that fans experience a variety of affective states as a result of a team's performance in an athletic competition (see Schwarz, Strack, Kommer, & Wagner, 1987; Sloan, 1979; Zillmann, Bryant, & Sapolsky, 1989).

What has not been established in the literature, however, is whether the BIRG phenomenon is better conceptualized as an attitude or an affective state. Further, no research has investigated whether the BIRG effect precedes enjoyment with the event outcome or vice versa. That is, do fans experience joy as a result of basking in reflected glory or do they BIRG because they enjoyed the game? While conceptually intriguing, there is neither a theoretical nor practical reason to temporally separate the constructs in the present study. Therefore, consistent with Petty et al. (1988) and Westbrook (1987), BIRG is conceptualized here as a transient affective state that is specific to a sporting event outcome (see Oliver, 1993 for a discussion of situation-specific affect). Moreover, the operationalization of basking in the present study relies on Cialdini et al.'s (1976) central theme that the BIRG effect is dependent on the association or unit formation that a fan forms with a successful team. Accordingly, any behavioral manifestations associated with basking are consequent to one's increased or decreased association with a team.

Constructs in the Model

The Effect of Cognition on Affect

The current study examines the influence of three cognitive antecedents thought to be theoretically related to the affective reactions of basking in reflected glory and the enjoyment derived from watching a game and how they, in turn, influence satisfaction judgments. The following section examines the literature linking basking in reflected glory and enjoyment to expectancy disconfirmation, team identification, and quality of the opponent.

Expectancy disconfirmation. Early work on the satisfaction construct focused on the notion of expectancy disconfirmation. The expectancy disconfirmation paradigm refers to two processes consisting of the formation of pre-consumption normative standards (i.e., expectations) and the subsequent confirmation or disconfirmation of those expectations through

performance outcomes (Oliver, 1980; Weaver & Brickman, 1974). The extent to which outcomes match expectations determine to a large extent how information is processed and evaluated (Alba & Hutchinson, 1987; Cohen & Basu, 1987; Loken & Ward, 1990). For example, greater discrepancy between expectancies and outcomes should lead to greater cognitive processing (Hunt, Smith, & Kernan, 1989) and increased satisfaction/dissatisfaction with outcomes.

The formation of expectations would appear to be especially relevant in the context of competitive sporting events. Although event outcomes are rarely known prior to a competition, fans often have a general idea of who is expected to win. One needs only to consider the odds-makers in Las Vegas who establish point-spreads for purposes of gambling to find evidence that prior expectations do indeed exist. Expectancy disconfirmation suggests that a performance outcome that goes as expected (i.e., expectancy confirmation) will not engender an especially strong reaction on the part of a fan, one way or the other. In contrast, the psychological reactions experienced by fans are likely to be much more acute when the team does much better or much worse than expected.

Sigelman's (1986) research provides some empirical support for the role of expectancy disconfirmation in competitive sports. Sigelman was unable to replicate Cialdini et al.'s (1976, Study 1) BIRG effect in a field study on citizens' likelihood of either leaving up or taking down yard signs supporting a particular candidate after a local county election. Unlike Cialdini et al.'s study in which students were found to be more likely to wear clothing featuring the school insignia after football victories than after losses, Sigelman found that citizens were no more likely to leave signs up for election winners than for losers. He attributed the failure to a key contextual difference between a county election and an athletic contest: "the *climate of expectations* in which behavior occurs" (p. 91, emphasis in original). Sigelman argued that in the local election there were no clearcut expectations about who would win and who would lose. By contrast, the schools included in Cialdini et al.'s apparel study were all football teams whose annual win-loss records over the years placed them among the nation's best. Sigelman argued that in situations where winning is expected, losing can be particularly traumatic and the motive to CORF may be unusually strong. Conversely, where winning is not the norm (i.e., where low expectations exist), losing becomes more acceptable or at least less unacceptable.

Team Identification. An individual difference variable that has been shown to be an especially important predictor of the BIRG effect and enjoyment is team identification. Team identification considers the valence of the unit relationship between the fan and the team.[1] As with any important social identity (Abrams & Hogg, 1990), fanship represents an association from

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[1]Zillmann et al. (1989) conceptualized this linkage in terms of the fan's disposition toward the team.

which the individual derives considerable emotional and value significance. For example, team identification has been positively related to general self-esteem and a positive outlook on life, and negatively related to depression and negative affective experiences (Branscombe & Wann, 1991).

Team identification plays a moderating role in the BIRG and CORF responses because sports fans' loyalty or psychological attachment to a team varies. On one end of the continuum are fans whose identification with a particular team is so central to their identity that they remain loyal regardless of the adversity facing the team, while at the other end are those whose allegiance is transitory and dependent solely on team performance. In a study of die-hard and fair-weather fans, Wann and Branscombe (1990) found that fans higher in team identification tended to BIRG more and CORF less than fans classified as moderate or low in team identification. In contrast, fans moderate or low in team identification were less likely to BIRG and showed an increased tendency to CORF. Branscombe and Wann (1991) added further credence to this effect by reporting that a fan's identification with a team was not related to that team's professional record. These studies may help explain the behavior of fans who continue to remain loyal to mediocre teams (e.g., Chicago Cubs) year after year.

In a more recent study, Hirt et al. (1992) examined some of the costs and benefits of identifying with a sports team. The researchers argued that a strong allegiance with a team is risky because once committed, a fan is unable to easily disassociate from the team or CORF—a view that is consistent with the work of Wann and Branscombe (1990). Consequently, the fan is unable to escape the negative association when the team performs poorly. Hirt et al. found that fans enjoyed positive benefits (increased mood and self-esteem, and increased belief in personal competence) as a result of team success, and that they suffered negative costs (decreased mood and self-esteem, and decreased belief in personal competence) when the team failed. In addition, fans' estimates of both the team's and their own future performance on a series of skills tasks were significantly better in the win than in the loss condition. These results provide empirical evidence supporting Schafer's (1969) assertion that fans see their team as an extension of self. In other words, the association between fan and team is such that team success is interpreted as personal success and team failure is interpreted as personal failure.

Quality of Opponent. The final cognitive antecedent of basking in reflected glory and enjoyment considered in this study is the quality of the opponent. This variable represents an objective measure of perceived threat. The results reported by Cialdini et al. (1976; Studies 2 and 3) suggest that the tendency to associate with a positive source was strongest when one's public image was threatened. Breakwell (1986) has argued that although threats are usually perceived at the individual level, they quite often involve group memberships. Consequently, an individual deriving part of her or his self-image from a sports team is more likely to perceive threats to the team as threats to that individual's identity. This line of reasoning suggests that

victories against opponents perceived as being greater threats are more likely to lead to a greater desire to associate with the winning team and increased enjoyment.

The Effect of Affect on Satisfaction Judgments

Recently, the role of affect as a predictor of satisfaction judgments has received considerable attention in the consumer behavior literature. Generally, satisfaction has been described as a postchoice cognitive evaluation pertaining to a specific purchase decision (Day, 1984). Building on the work of Weiner (1986), Oliver (1989) has presented a theoretical framework in which a purchase outcome leads to both a generalized state of affect (e.g., happy if positive, frustrated or sad if negative) and specific emotional reactions resulting from disconfirmation-induced attribution. According to Oliver, the generalized affect path is parallel to the cognitive (disconfirmation) sequence with each simultaneously influencing satisfaction. Accordingly, affect is antecedent to satisfaction. In fact, satisfaction judgments about consumption experiences result from the cognitive processing (i.e., evaluating) of affect. This is supported by research showing that individuals form summary states representing positive and negative affect in reaction to product/service consumption and that these states have a direct influence on satisfaction judgments (Mano & Oliver, 1993; Oliver, 1993; Westbrook, 1987; Westbrook & Oliver, 1991).

The research reported by Oliver (1993) and Westbrook (1987) posited a direct effect of expectancy disconfirmation on satisfaction judgments, rather than a path mediated by affect. In contrast to his earlier discussion (1989) on a disconfirmation-attribution-affect-satisfaction hierarchy, Oliver proposed a model suggesting that expectancy disconfirmation and attribute-dependent affect each contributed uniquely to satisfaction judgments. He posited that the two were distinct because disconfirmation requires deliberate cognitive processing, whereas affective processing is not under conscious control. Interestingly, Oliver (1993) and Westbrook (1987) found that the direct influence of expectancy disconfirmation had a substantially greater effect on satisfaction than did affect. However, neither Oliver nor Westbrook addressed the possibility that the effect of expectancy disconfirmation on satisfaction may be partially or wholly mediated by affect. For example, Kemper (1978) has reported that disconfirmation leads to stronger emotional responses than does confirmation, and a recent study by Midkiff and Griffin (1992) has provided a direct link from disconfirmation to affective reactions.

The Model

Derived from the previous discussion, the structural relations depicted in Figure 1 represent the hypothesized model. The recursive model begins with direct effects from team identification, quality of the opponent, and expectancy disconfirmation to basking in reflected glory and enjoyment.
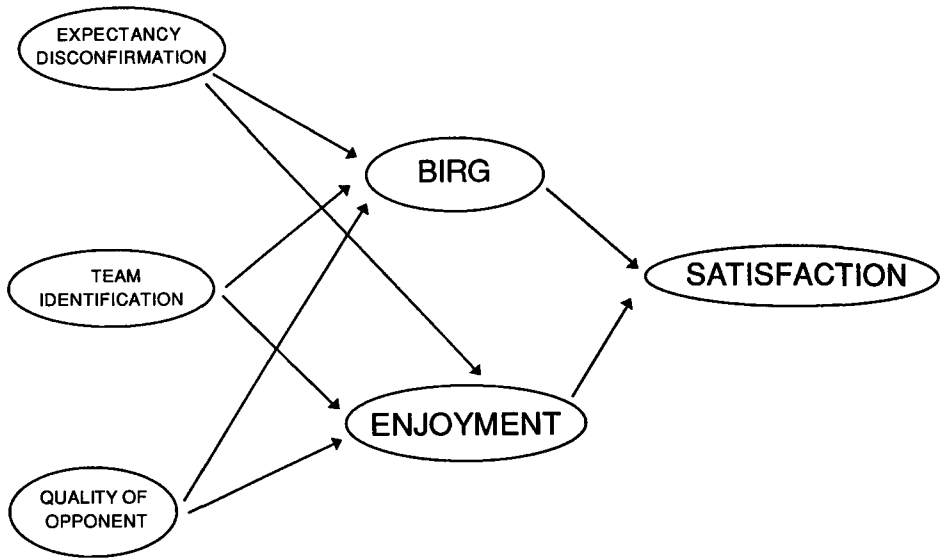
Note - Only latent constructs are shown for simplicity

Figure 1. Hypothesized Model of Fan Satisfaction

Basking in reflected glory and enjoyment are then directly related to satis-faction with the decision to attend the event. Enjoyment was selected in the current study because of its logical association with the BIRG phenomenon and because of the eventual outcome of each of the games included in the analysis.

Bagozzi (1984) noted the need for researchers to also consider rival hypotheses in theory construction and stressed that these alternative hypoth-eses should be tested within the same study whenever possible. Thus, two alternative models were also considered. Model 2 examined the possibility that expectancy disconfirmation had a direct effect on satisfaction judgments and was not mediated by affect. Thus, team identification and quality of opponent were each related directly to enjoyment and basking in reflected glory. Basking in reflected glory, enjoyment, and expectancy disconfirmation were then related directly to satisfaction. Model 3 addressed the temporal priority of affect and satisfaction. It is possible that the effect of expectancy disconfirmation, team identification, and quality of game on affect is medi-ated by satisfaction judgments. Thus, a model specifying these relationships was constructed.

Method

A field study was conducted in which data were collected from individuals attending one of four women's basketball games at a large, midwestern state university. A convenience sample using two-stage sampling was used to collect data from 232 individuals. Five surveyors, all trained graduate students, were assigned to various sections of the arena and instructed to contact individuals prior to the beginning of the game. Potential respondents were first asked if they would be willing to participate in a study on fan behavior. If they agreed, they were then told that data would be collected in two stages. First, a short questionnaire would be completed before the game began. Second, the fan must be willing to meet at a central location immediately after the game to complete a second questionnaire. Of the 349 individuals agreeing to participate, approximately 67% (N = 232) returned after the game to complete the second questionnaire. The first questionnaire included items related to team identification, experience with the team, and demographic variables; whereas the second included scales assessing expectancy disconfirmation, emotional reactions to the game, basking in reflected glory, and satisfaction with the decision to attend the game.

The sample was comprised of far more women (63.5%) than men (36.5%). Although no athletic department statistics are kept on actual attendance by sex, the disparity is understandable given that the data were collected at women's basketball games. The mean age for the sample was 39 years (SD = 12.33 years). By far, the majority of the sample (83.7%) were not season ticket holders, although most (nearly 70%) had attended or were planning to attend three or more games during the season. The number and percentage of respondents participating in both stages of data collection by game were, respectively, 39 (17%), 50 (22%), 66 (28%), and 77 (33%).

Measures

Team Identification. A nine item scale developed by Wann and Branscombe (1993) to measure fans' identification with a particular sports team was used in the current study. Six of the items address individuals' personal identification with the team, whereas three are concerned with whether the individual follows the team via various media sources. The items within each dimension were summed to form two summary measures (personal identification with the team, media usage) and each was related to a team identification construct. As per Wann and Branscombe, items were measured using bipolar seven-point scales.

Expectancy Disconfirmation. Disconfirmation measures often involve a pre-test inquiring about expectancies and a post-test assessing actual performance. Expectancy disconfirmation is then subsequently calculated as the disparity between the two measures. However, Peter, Churchill, and Brown (1993) have recently presented a number of reasons why difference scores should be avoided. Therefore, respondents in the current study were allowed

to assess disconfirmation subjectively using a measure of direct comparison (Oliver, 1980). The expectancy disconfirmation measure, included in the second questionnaire, was completed by respondents immediately after the game. Consistent with Tse and Wilton (1988), respondents were asked: "Overall, how close did the (team's name) come to meeting your expectations" on two items. The first item addressed how well the team played (PLAY) and the second asked about the quality of the game (QUALITY). Items were assessed on a seven-point Likert scale developed by Oliver (1980, 1981) which ranged from *much worse than I expected* (1) to *much better than I expected* (7).

Quality of the Opponent. Quality of the opponent was calculated as a dichotomous variable based on which of the four games was attended. The first level included respondents attending either the first or second game ($n = 89$); the second level included those attending games three or four ($n = 143$). Games were divided on the basis of how well the opposing team had done the previous year and how they were expected to do during the current season. Games one and two were against opponents that the home team was expected to beat based on rankings both within the conference and nationally. In fact, the home team won the first game by 30 points and the second game by 11 points. The final two games were against opponents who were ranked higher both in the conference and nationally. As things turned out, the home team won both games. The margin of victory in the third game was a two-point basket in the closing seconds; whereas the home team won the fourth game—against a team ranked number two in the country—by 12 points.

Basking in Reflected Glory. Consistent with Cialdini et al.'s (1976) conceptualization of the BIRG response as the tendency to increase one's association with a successful other, a single-item measure was included on the post-game questionnaire to assess the phenomenon. Specifically, respondents were asked, "After viewing this game, I would like to:", with responses ranging from *decrease my association with this team* (1) to *increase my association with this team* (7).

Enjoyment. Respondents were asked to complete six of ten subscales from Izard's (1977) Differential Emotions Scale (DES). Specifically, participants responded to 18 items representing six different emotions (enjoyment, surprise, distress, anger, disgust, contempt). For purposes of conceptual clarity and model brevity, only the enjoyment subscale was included in the current study. Respondents were asked to indicate the extent to which they experienced each of the following as a result of watching the game just completed: happy, delighted, joyful. Similar to the argument provided above for expectancy disconfirmation, a direct comparison measure—as opposed to a pre and post measure—was also deemed most appropriate in assessing respondents' affective response to the game. Thus, a seven-point scale ranging from *far less than before the game* (1) to *far more than before the game* (7) was used.

Satisfaction. Three items used in previous research (Oliver, 1980) were included on the post-game questionnaire to assess fans' satisfaction with their decision to attend that particular game. Each of the items was measured on a seven-point Likert scale ranging from *strongly disagree* (1) to *strongly agree* (7). The three items were, respectively: "I am satisfied with my decision to attend this game" (SAT 1); "I think that I did the right thing by deciding to attend this game" (SAT 2); and "I am *not* happy that I attended this game" (SAT 3; reverse coded).

Data Analysis

Data were analyzed using the RAMONA computer program (Browne & Mels, 1992). RAMONA implements the McArdle and McDonald (1984) Reticular Action Model (RAM) for path analysis with manifest and latent variables. An advantage of RAMONA over other programs is that it can correctly fit path analysis models to correlation matrices, therefore avoiding the errors associated with treating a correlation matrix as if it were a covariance matrix (Cudeck, 1989). Furthermore, both exogenous and endogenous latent variable variances can be required to have unit variances. As a result, the standard errors associated with estimates of standardized path coefficients can be obtained, thus avoiding the difficulties associated with the interpretation of unstandardized path coefficients (Bollen, 1989).

Goodness-of-fit statistics indicate the extent to which a hypothesized model is able to reproduce the observed data. Although controversy exists regarding the most appropriate method or fit statistic to be used in identifying the "best" model, it is generally agreed that multiple measures of fit are preferable. Rather than assessing goodness-of-fit, two measures were selected to evaluate the degree of lack of fit of a model (Browne & Cudeck, 1992). Measures of fit involving comparisons between a null model and a hypothesized model using a single index (e.g., Mulaik, James, Van Alstine, Bennett, Lind, & Stillwell, 1989, pp. 432-45; Bollen, 1989, pp. 269-76) were not employed. Sobel and Bohrnstedt (1985) have argued that it makes more sense to select a referent model on the basis of prior theory than on a null model. Therefore, competing models were compared using separate measures of lack of fit of individual models rather than a single index whose magnitude is affected by the null model and the model being evaluated. Furthermore, because measures of fit represent approximations that are not directly observable and must be estimated from a sample, point estimates are supplemented by interval estimates so as to bring attention to the lack of precision of the estimate. The current study employed a 90% confidence interval around the point estimates (Steiger & Lind, 1980).

The first measure of lack of fit was Steiger's (1990; Steiger & Lind, 1980) root-mean-square-error of approximation (RMSEA) which is a measure of the discrepancy per degree of freedom for the model. The RMSEA is a badness of fit statistic bounded below by zero and will be zero only when the

model fits the data exactly. Browne and Cudeck (1992) observed that RMSEA values of approximately 0.05 or lower indicate a close fit of the model in relation to the degrees of freedom and can not be rejected because the lower limit of the 90% confidence interval is zero. Models with values of approximately 0.08 or less indicate a reasonable error of approximation, and models with a RMSEA greater than 0.1 should not be considered.

Traditionally, an overall chi-square statistic is used to assess the exact fit of a model. Invariably, however, the null hypothesis is rejected if the sample size is sufficiently large. This leads to the possibility of adding uninterpretable or non-theoretical parameters to the model or the use of only small samples. Therefore, Browne and Cudeck (1992) suggested the use of a null hypothesis of close fit and a corresponding statistical test. The test of close fit will not be rejected at the 5% level if the lower limit of the 90% confidence level on the RMSEA is less than 0.05. Consequently, exceedance probabilities for both exact fit and close fit were considered.

The final assessment of fit was the Expected Cross-Validation Index (ECVI; Browne & Cudeck, 1990). The ECVI, unlike the RMSEA which does not depend on sample size, considers the fact that it is not advisable to overparameterize a model when N is small. Lower values of the ECVI indicate better fit with a variant range that depends on the specifics of the application. Therefore, the point estimate of the ECVI gives some guidance in determining the number of parameters that should be retained. Again, because sampling variability influences the point estimates, a 90% confidence interval is provided.

The measures of fit described above were used to assess three competing models. Model comparisons and specifications were conducted using Anderson and Gerbing's (1988) two-stage approach to structural modeling. Accordingly, a saturated model in which all parameters (i.e., unidirectional paths) relating the constructs to one another was specified. This model served as the baseline and was compared to the three competing (i.e., constrained) models using sequential chi-square difference tests. The constrained model with the closest fit to the saturated model was then compared to a series of nested models in which specific paths were unconstrained on the basis of theory.

Results

Preliminary Analysis

A correlation matrix, means, standard deviations, and reliability coefficients for the summary measure of each item included in the model are presented in Table 1. These results indicate that, overall, respondents tended to be highly identified with the women's basketball team and derived a great deal of enjoyment as a result of watching the game. In addition, the mean values for the basking in reflected glory and satisfaction scales were quite high, indicating that most attenders desired an increased association with the team after watching the game and were satisfied with their decision to

TABLE 1
Descriptive Statistics and Correlation Matrix for Input Variables (N = 232)

Construct Variables	1	2	3	4	5	6	7	8	9	10	11	12	Mean	SD	Reliability	Range	No. of Items
Expectancy Disconfirmation													5.26	1.31	.76	1-7	2
1. Play	1.00																
2. Quality	.56	1.00															
Team Identification																	
3. Pers Id	−.01	.09	1.00										5.32	1.17	.83	1-7	6
4. Media Use	−.08	−.02	.62	1.00									5.10	1.49	.75	1-7	3
Quality of Opponent																	
5. Opponent	.19	.16	.12	−.02	1.00												
BIRG													6.42	.92	—	4-7	1
6. BIRG	.16	.24	.52	.36	.21	1.00											
Enjoyment													5.91	1.07	.87	1-7	3
7. Happy	.30	.35	.41	.36	.23	.51	1.00										
8. Delight	.19	.24	.34	.29	.22	.46	.69	1.00									
9. Joyful	.20	.29	.35	.32	.19	.47	.68	.70	1.00								
Satisfaction													6.79	.64	.95	1-7	3
10. SAT1	.14	.13	.20	.21	.20	.35	.35	.36	.31	1.00							
11. SAT2	.13	.12	.28	.25	.22	.40	.42	.42	.34	.88	1.00						
12. SAT3	.07	.07	.20	.21	.13	.31	.31	.32	.28	.85	.85	1.00					

attend. The reader's attention is now directed to the correlations between the BIRG item and each of the enjoyment measures. Although each of the correlations is substantial, the highest correlation (between happy and BIRG) accounts for only about 25% of the variance. These correlations tend to support the notion that the BIRG response and enjoyment, although related, are not identical constructs.

A potentially relevant question that arises immediately is whether any differences exist by sex for team identification, expectancy disconfirmation, enjoyment, basking in reflected glory, and satisfaction. A multivariate analysis of variance (MANOVA) was conducted in order to answer this question. The results indicated that no differences existed between women and men on these variables, Wilks' = .97, $F(6,225)$ = 1.06, p = .39. Thus, sex differences were not considered in the structural model.

Tests of competing models

A summary of fit measures and comparisons between the three competing models as outlined by Anderson and Gerbing (1988) is presented in Table 2. Of the three competing models, the hypothesized model shown in Figure 1, provided the best fit of the data. The model specifying satisfaction as an antecedent to affect, Model 3, yielded the poorest fit when compared to both the saturated model and Model 1. Likewise, Model 1 provided a superior fit to one specifying a direct path from expectancy disconfirmation to satisfaction without any direct effects on affect (Model 2). In fact, the direct path from expectancy disconfirmation to satisfaction in Model 2 was not significant (β = −.01, SE = .07, t = .20). Thus, it appears that the model fitting the data best is one in which expectancy disconfirmation, team identification, and quality of the opponent serve as cognitive antecedents to the affective variables of basking in reflected glory and enjoyment which, in turn, have direct effects on satisfaction.

Although an analysis of the fit measures suggests an adequate fit overall, the significant difference between Model 1 and the saturated model indicates that the hypothesized model could be modified to improve the fit. Model modifications constitute a specification search (MacCallum, 1986), the purpose of which is to improve the parsimony of the model and its fit to the data. Only those modifications that were substantively or theoretically meaningful were implemented. Relationships between variables not accounted for by the model were initially examined on the basis of residual correlations. The residual correlation matrix is the difference between the sample correlation matrix and the reproduced correlation matrix.

Examination of the residual correlation matrix resulting from Model 1 indicated substantial residual correlations between the expectancy disconfirmation measures and quality of opponent. Intuitively, this makes sense because expectations are likely to be lower against better opponents than against lesser opponents. Consequently, the two exogenous constructs were allowed to covary (Browne and Mels, 1992). As indicated in Table 2, the

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TABLE 2

Fit Measures for Competing Path Models and Model Comparisons ($N = 232$)

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Models	q	d	RMSEA	RMSEA CI	ECVI	ECVI CI	χ^2	Probability Exact	Probability Close
Saturated (M_s)	37	41	.041	(.000-.065)	.565	(.498-.669)	56.62	.053	.714
Model 1 (M_1)	30	48	.053	(.031-.073)	.602	(.513-.725)	79.09	.003	.386
Model 2 (M_2)	28	50[a]	.079	(.061-.097)	.771	(.647-.928)	122.10	.000	.000
Model 3 (M_3)	27	51	.118	(.102-.135)	1.168	(.987-1.381)	215.76	.000	.000
Model 1_a (M_{1a})	33	47	.046	(.020-.068)	.572	(.491-.686)	70.04	.016	.592
Model 1_b (M_{1b})	32	46	.037	(.000-.061)	.539	(.476-.645)	60.59	.073	.799

<div align="center">

MODEL COMPARISONS

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	$df_{difference}$	$\chi^2_{difference}$	probability
M_1 - M_s	7	22.47	<.01
M_2 - M_s	8	65.45	<.00
M_3 - M_s	10	159.14	<.00
M_2 - M_1	1	42.98	<.00
M_3 - M_1	3	136.67	<.00
M_1 - M_{1a}	1	9.05	<.00
M_{1a} - M_s	6	13.42	<.05
M_{1a} - M_{1b}	1	9.45	<.01
M_{1b} - M_s	5	3.97	>.10

[a]For purposes of identification, the error terms for the two disconfirmation measures were constrained to be equal.
Note. M_S: saturated model; M_1: hypothesized model shown in Figure 1; M_2: unmediated direct path from ED to Satisfaction; M_3: Satisfaction as an antecedent of Affect; M_{1a}: = Model 1 with Quality of Opponent ↔ ED; M_{1b}: = Model 1_a with Enjoyment ↔ BIRGing.

resulting model (Model 1a) yielded a significant improvement in fit over Model 1, $\chi^2(1) = 9.05$, $p < .01$. In addition, the lower RMSEA and ECVI values indicated an improved fit over Model 1. However, a comparison of Model 1a to the saturated model indicated that the model could still be significantly improved.

Relative to the other residual correlations, the relationship between the enjoyment items and the BIRG measure were also substantial. Substantively, it is logical to assume that these constructs would be correlated given the positive nature of both affective states. Model 1b, therefore, extended Model 1a by allowing the error terms of the BIRG and enjoyment constructs to covary. As shown in Table 2, Model 1b significantly improved upon the fit of Model 1a. In addition, a comparison of Model 1b with the saturated model revealed no differences in fit. This suggests that no additional significant paths existed in the data. The RMSEA value of .037 suggests that the model provides an excellent fit to the data (Browne & Cudeck, 1992). Moreover, the RMSEA and ECVI values for Model 1b, as well as the tests of close and exact fit were superior to any of the models, including the saturated model.

Given the significant covariation between basking in reflected glory and enjoyment, one might wonder whether the two variables constitute one construct: positive affect. Thus, a model was specified in which the three antecedents were related directly to a positive affect dimension composed of the BIRG variable and the three enjoyment items. The resulting model provided an adequate fit to the data, $\chi^2(51) = 99.74$, $p_{exact} = .000$, $p_{close} = .102$, RMSEA $= .065$ $(.045 - .083)$, ECVI $= .666$ $(.559 - .805)$. However, a comparison of fit indices indicates that this model did not fit the data nearly as well as the hypothesized model (Model 1, see Table 2). Therefore, it appears that although related, basking in reflected glory is a distinct affective state from enjoyment.

Table 3 presents the RAMONA point estimates and t-values for the measurement and structural models from Model 1b. The factor loadings for expectancy disconfirmation, team identification, enjoyment, and satisfaction ranged from a low of .72 to a high of .94. Further, each of the loadings was highly significant ($p < .001$), thus indicating that the items adequately represented the latent constructs.

Table 3 also shows the results of the structural model from Model 1b. All of the specified paths were significant. In particular, the paths relating team identification to the BIRG and enjoyment constructs were especially substantial. In contrast, the paths from quality of opponent to each affect were only minimally significant. In fact, the covariation between expectancy disconfirmation and quality of opponent accounted for a greater proportion of variance than either of the direct paths to basking in reflected glory or enjoyment. The results also indicate that expectancy disconfirmation was a better predictor of enjoyment than it was of basking in reflected glory. Interestingly, enjoyment had substantially more influence in predicting satisfaction with attendance than did basking in reflected glory.

TABLE 3
Maximum Likelihood Point Estimates for Final Model (t-Values)

Causal Paths	Expectancy Disconfirmation (ED)	Team ID	Quality of Opponent (Opp)	BIRG	Enjoyment	Satisfaction	Variance / Covariance
Measurement Model							
Play	.72 (10.80)						.48 (4.96)
Quality	.78 (11.32)						.40 (3.74)
Personal ID		.86 (18.94)					.27 (3.46)
Media Usage		.72 (15.38)					.48 (6.96)
Opp			1.00				.00
BIRG				1.00			.00
Happy					.85 (32.60)		.28 (6.34)
Delighted					.82 (29.17)		.33 (7.07)
Joyful					.81 (28.22)		.34 (7.26)
Sat 1						.94 (78.85)	.13 (5.71)
Sat 2						.94 (84.58)	.11 (5.21)
Sat 3						.90 (61.17)	.19 (6.99)
Structural Model							
ED →				.24 (3.62)	.39 (5.75)		
ED ↔			.23 (3.10)				
Team ID →				.56 (10.62)	.51 (8.57)		
Opp →				.12 (2.05)	.14 (2.26)		
BIRG →						.18 (2.41)	.60 (9.72)
BIRG ↔					.16 (2.97)		
Enjoyment →						.35 (4.51)	.54 (7.89)
Satisfaction							.77 (14.66)

Discussion

The current study proposed and extended a theoretical model related to sports fans' perceptions. Three models, each specifying a different causal sequence, were compared that related a number of cognitive antecedents to affective reactions and satisfaction judgments regarding game attendance. Of the three alternatives, the model (Model 1) providing the best fit of the data was one specifying direct paths from expectancy disconfirmation, team identification, and quality of opponent to the affective states of basking in reflected glory and enjoyment, which were then, in turn, related to satisfaction. This model provided a significantly better fit to the data than either one in which a direct path from disconfirmation to satisfaction (with no paths from disconfirmation to affect) was specified, or one specifying satisfaction as an antecedent of affect. Modification of the hypothesized model led to the covariation of expectancy disconfirmation and quality of opponent (Model 1a), as well as the correlation of error terms between the BIRG and enjoyment constructs(Model 1b).

In terms of the effect of cognitions on post-game affect, the results of this study indicate that team identification, expectancy disconfirmation, and quality of the opponent each had a significant and positive effect on basking in reflected glory and enjoyment. In particular, team identification had the greatest effect on each affective state. The influence of team identification on the BIRG response has received considerable empirical support in recent years (Hirt et al., 1992; Wann & Branscombe, 1990). Those who are more highly identified with a team are more likely to BIRG than those who are less identified. Likewise, the positive effect of team identification on enjoyment is consistent with earlier research (Wann & Branscombe, 1992; Wann, McGeorge, Dolan, & Allison, 1994; Zillmann et al., 1989). In sum, it appears that fans who view their association with a team as a more important facet of their self-identity tend to experience greater personal joy and seek greater individual association with the team when it experiences successful outcomes.

After team identification, the next most influential cognitive antecedent was expectancy disconfirmation. Although the relationship between disconfirmation and basking in reflected glory has been implied (Sigelman, 1986), this is the first study to empirically demonstrate the effect in a sports context. Further, the findings presented here linking disconfirmation to enjoyment builds on past research done outside the sports context (Kemper, 1978; Midkiff & Griffin 1992). The relationship between these variables is such that improved perceptions of performance relative to expectations are positively related both to fans' tendency to BIRG and their enjoyment of the game. Further, the significant covariation between expectancy disconfirmation and quality of opponent indicates that fans do indeed process information related to the opponent in determining pre-game expectations.

An interesting area of future research would be the relationship between expectancy disconfirmation and the notion of "wishful thinking" as it applies

to sports fans (see Babad & Katz, 1991; Weinstein, 1980). Wishful thinking refers to the influence of individuals' preferences on predictions about the outcomes of future events. In short, individuals who are more highly identified or involved with a team are more likely to predict successful outcomes even when objective evidence would suggest otherwise. This effect has been shown to be especially strong under conditions of greater uncertainty (Buckley & Sniezek, 1992). Therefore, the notion of wishful thinking would suggest that the relationship between team identification and expectancy disconfirmation would not be significant. That is, individuals high in identification should have relatively high expectations and, consequently, team victories should not result in substantial differences between expectations and outcomes. Although not formally tested in the current study, the covariation between expectancy disconfirmation and team identification in the saturated model was not significant (β = .04, SE = .09, t = .39), thus suggesting that fans who were more highly identified with the team did indeed have higher expectations about performance prior to the start of the game.

The results also indicate that basking in reflected glory and enjoyment constitute two separate dimensions of positive affect, each with an independent effect on fans' post-game satisfaction. Of the two, it appears that enjoyment as a result of watching the game contributed substantially more to satisfaction than did basking. The BIRG response is apparently a state of arousal or activation that is an end in and of itself, whereas enjoyment is a construct more likely to elicit summary judgments relative to outcomes. Thus, enjoyment may be viewed as an intense form of pleasure (Storm & Storm, 1987; Watson & Tellegen, 1985) and basking in reflected glory as a form of pride. As such, attribute ascriptions regarding the source of pleasure are more likely to yield appreciation and satisfaction toward the source, whereas pride may be a more self-centered effect that is not likely to elicit satisfaction judgments. Although the current study conceptualized the BIRG response as an affective reaction to a game outcome, it may be more appropriate to think of it in terms of being an attitude toward a team following a successful outcome. In any event, future research is needed to more clearly understand the nature of these relationships.

As with any study, a number of limitations should be acknowledged. First, data were collected from fans of just one sport. It is possible that fans of women's basketball may be different from fans of other sports, especially men's sports. Second, the sample included in the study also had limitations. To begin with, a convenience sample comprised predominantly of women was used as opposed to a true random sample of sports fans. Although data were collected over a period of four games, a more representative sample may have yielded different results. A related shortcoming of the study was that only 67% of the original respondents returned to complete the second questionnaire. As noted by a reviewer, it may be that "completers" are not representative of the overall sample. A third limitation of the study was that the home team won each of the four games from which data were collected.

What effect would a loss have had on tendency to BIRG, enjoyment, and satisfaction responses?

A fourth limitation of the study concerned the operationalization of the BIRG measure. Specifically, a single-item scale assessing only the degree to which fans desired to increase or decrease their association with the team following the game was used to assess basking in reflected glory. Although conceptually consistent with Cialdini et al. (1976), the measure did not assess self-presentational effects intended to publicly extol the unit formation with the team (e.g., the desire to brag about the team to others). Future research should use multiple measures, including behavioral methods (see Snyder et al., 1986) to collect data on the BIRG phenomenon.

In conclusion, research in consumer behavior has suggested that satisfaction judgments are of paramount importance for customer retention and are a prime motivator of word-of-mouth communications. This implies that satisfaction judgments serve as a crucial predictor of future economic activity. In spite of its importance, little research has been conducted on those variables capable of predicting consumer satisfaction in leisure activities. The current research extends past work in consumer behavior by presenting a model suggesting a cognition—affect—satisfaction sequence for fan attendance. Although past research has examined different elements included in the model, the current study represents the first time that a theoretically grounded sequence related to sports fans' satisfaction with attendance has been tested. The results suggest a causal link between fans' cognitions and their summary judgments about satisfaction with game attendance that is mediated by basking in reflected glory and enjoyment. An additional contribution of the current study is the introduction of research on fan behavior into the leisure literature. Clearly, the vicarious consumption of sports in our society represents a dominant leisure behavior that offers a wide array of theoretically and practically relevant topics for leisure researchers.

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