

FOCUS

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"BUZZER BEATERS" AND "BARN BURNERS": THE EFFECTS ON ENJOYMENT OF WATCHING THE GAME GO "DOWN TO THE WIRE"

Prior research on the effects of being kept in suspense about the outcome of a sports contest on spectators' enjoyment of the sporting event has yielded ambiguous findings, which the present investigation was designed to clarify. A high school football game was videotaped professionally. The tapes were edited, and play-byplay and color commentary was added, so as to create a suspenseful version and a nonsuspenseful version of the game. In addition to suspense, outcome of the game (favorable, unfavorable) and gender of the viewer (female, male) were predicted to affect enjoyment of the sportscast. Enjoyment of watching the sportscast was assessed in a $2 \times 2 \times 2$ factorial design. Viewing a more suspenseful version of the sportscast made the game more enjoyable, less boring, more exciting, and less dull. Moreover, under conditions of high suspense, viewers were more anxious about the outcome, cared more whether the liked team won, and liked the victorious team more than did viewers in the nonsuspenseful versions of the sportscast. In line with disposition theory and prior research, a favorable outcome for the desired team was more enjoyable than an unfavorable outcome, and men generally reported liking the sportscast more than did women.

s new communication technologies deliver more and more information to the home, the number of sports events available to the audience, any time of the day or night, is growing rapidly. New cable channels devoted solely to sports are continuing to debut on cable systems across the nation. ESPN, the first such channel, has recently spawned ESPN-2, a channel dedicated to the delivery of "alternative" sports. The pay-per-view industry relies heavily on society's hearty appetite for sports events, thus giving the sports fan even more viewing choices and opportunities to become the information age's "super spectator" (Johnson, 1971).

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Through his and her commitment to sports, this super spectator is contributing mightily to information-age economies. A recent article in *Business Week* (Mandel et al., 1994), titled "The Entertainment Economy: America's Growth Engines," identified sports and sports spectatorship as among the largest and fastest-growing segments of the U.S. economy. In fact, according to U.S. Department of Commerce assessments and forecasts, spending on sports entertainment and recreation has vastly exceeded growth in average per capita expenditures during the past decade and is expected to continue at high rates right through the turn of the next century.

Because it is obvious that many of today's television viewers are willing to spend considerable sums of money and time on sports entertainment, questions concerning what factors motivate consumption and mediate enjoyment of televised sporting contests merit scholarly attention. As Duncan and Brummett (1989) noted, "Although scholars have increasingly turned their attention to sport spectatorship, few have examined the particular appeals of television sports spectatorship" (p. 195). Similarly, Greendorfer and Koehler (1983) called for investigations of "factors which account for the pervasiveness of sport spectatorship in society," including an examination of "the communication experience itself" (pp. 41-42).

Increasingly, such calls for research are being answered. For example, investigators have begun to systematically study several sociological, psychological, and communication factors that affect the enjoyment of televised sports contests (e.g., Birrell & Loy, 1979; Bryant, Brown, Comisky, & Zillmann, 1982; Bryant, Comisky, & Zillmann, 1977; Bryant & Zillmann, 1983; Case & Boucher, 1981; Comisky, Bryant, & Zillmann, 1977; Duncan & Brummett, 1987; Gantz, 1981; Spinrad, 1981; Wenner, 1989; Zillmann, Bryant, & Sapolsky, 1979). Characteristic of these investigations, Gantz (1981) reported that exposure to televised sporting contests appears to have a number of appeals for viewers. These appeals include "to thrill in victory" and "to let loose." This would seem to suggest that by vicariously viewing a televised sporting contest, viewers are able to achieve some level of affective involvement in the sportscast. Viewers are not passively watching, they become involved and aroused in the action they witness during the sportscast. Indeed, Wenner and Gantz (1989) suggested that "the strongest affective involvement in sports came in 'feeling happy' when favorites did well."

One factor relating to the enjoyment of televised sports that has received some attention is the role of gender (e.g., Roloff & Solomon, 1989). Studies addressing this issue have supported the notion of gender differences in the enjoyment of witnessing televised sporting contests by demonstrating that men generally like viewing sports more than do women (Gantz, 1981, 1985). However, one study (Gantz, 1981) suggested that, once they began viewing, men and women did not differ in emotional involvement in a sportscast.

Another line of inquiry into this area has focused on how key dispositional variables relate to the enjoyment of sports. For example, in a series of field studies, Zillmann, Bryant, and their associates assessed sports fans' liking or disliking for professional or collegiate football teams and measured these fans' enjoyment of particular plays as well as entire games (Zillmann, Bryant, & Sapolsky, 1989). A positive disposition toward a team was found to enhance the appreciation of successful offensive plays, whereas a negative disposition toward that team not only impaired appreciation of play but tended to produce disappointment as well.

These findings on disposition were extended by Bryant et al. (1982) in an investigation that found that viewers who were led to believe, via manipulated commentary, that two opponents in a televised tennis match hated one another reported significantly higher levels of enjoyment of the event than did viewers led to believe that the two opponents were friends. These factors have been incorporated into a disposition theory of "sportsfanship" that proffers that watching an intensely liked team or player do well is more enjoyable than watching a team or player we feel indifferently about do well and is very much more enjoyable than watching "our" player or team lose. Several studies support the notion that observing the outcome of sports contests in line with fans' dispositional preferences is a critical ingredient for enjoyment (e.g., Zillmann et al., 1989), if such was ever in doubt.

Another approach to understanding spectators' enjoyment of sportscasts has been to focus on other elements traditionally associated with drama (Zillmann, 1980; Zillmann & Bryant, 1986, 1994). For example, many theories of drama, such as Aristotle's treatise on the unity of drama in *The Poetics*, emphasize the importance of conflict and its successful resolution as ingredients in drama. Both elements have been examined in the context of spectators' enjoyment of sports contests. One study reported that male viewers tended to enjoy a National Football League (NFL) telecast more if it contained high levels of violent and rough play—certainly a form of conflict (Bryant, Comisky, & Zillmann, 1981). Bryant and Zillmann (1983) offered as an explanation for these findings that viewers enjoy sports contests more when they believe that the participants are giving their all, even risking serious injury in order to win.

Another element of drama that might help explain the mechanics involved with the enjoyment of sports is a theory relating to the enjoyment of suspense (Zillmann, 1991). In this theory, suspense is viewed, on its simplest terms, as a high degree of certainty of a negative outcome. The more the viewer anticipates this negative outcome, the higher the level of suspense that will ensue. However, for any appreciable level of suspense to be engendered in a viewer, the viewer must exhibit some degree of affinity toward one or more of the agents involved in the presentation. The higher the degree of this affinity,

the more suspense that is possible. Thus fear of a negative outcome and disposition toward the agents work together, then, to increase the levels of suspense engendered in the viewer.

Although many people equate suspense with uncertainty, this theory clearly posits that maximum levels of suspense do not follow mathematical models of uncertainty. Based on uncertainty models, we would estimate suspense to be highest when we were equally uncertain of any outcome. However, this theory of suspense holds that more suspense can be engendered when viewers become increasingly certain of negative outcomes up to the level in which absolute certainty of negative outcomes is reached, which presumably eliminates any suspense for the viewer.

Although fear of a negative outcome and a high degree of affinity toward an agent can work together to heighten suspense, this condition is not sufficient to foster increased levels of enjoyment. Indeed, these two factors alone could work to cause an aggravated state that Zillmann (1980) referred to as empathetic distress. It is only through the process of excitation transfer that this distress is allowed to turn into enjoyment or disappointment (Zillmann, 1978).

Excitation-transfer theory (e.g., Zillmann, 1991) suggests that some of the sympathetic excitation that is experienced during the witnessing of the distressing events lingers after these events are terminated. These increased excitational levels are then combined with the affective states generated by the outcome of the suspense, creating either a dysphoric or a euphoric state, depending on whether the outcome is negative or positive for a particular viewer. Thus, if a liked team or player is perceived as being highly likely to fail but then, in the end, triumphs, a high level of enjoyment will ensue. Enjoyment is a function of affinity toward the player or team and the degree of suspense created in the viewer. If either a player or a team is not liked or if no suspense is created, enjoyment will suffer. Conversely, if a liked team or player suffers a negative outcome on resolution of a suspenseful event or series of events, disappointment will ensue.

As has been indicated, a number of empirical investigations have attempted to test the propositions derived from disposition theory and the tenets derived from drama, including considerations of suspense. All have received substantial support (Zillmann et al., 1989) except for the notion that level of suspense is a critical factor in the enjoyment of sports contests. The single study that attempted to directly account for level of suspense (Sapolsky, 1980) failed to support predictions that degree of suspense would influence enjoyment, although its findings were strongly supportive of disposition theory.

The present investigation attempts to clarify the role of suspense in the enjoyment of watching sports contests. Through specially created and manipulated versions of a sports telecast, viewers saw either a suspenseful or a nonsus-

penseful version of a high school football contest. To facilitate the creation of suspense, polarized disposition toward the two teams was created via commentary; however, disposition was held constant across suspense conditions, and so it was not a variable. In line with dramatic theory, the nature of the outcome was manipulated (favorable, unfavorable). An additional factor was gender of the research participant (male, female), which was included because prior research has frequently found gender differences in the enjoyment of sports contests. These variables were tested in a $2 \times 2 \times 2$ factorial design.

METHOD

PARTICIPANTS

Participants were freshmen and sophomore students enrolled in one of several sections of an introductory communication course taught at a large southeastern university. A sample of 104 students (50 males and 54 females) was employed. Participants were run in pairs and received course credit for their participation.

EXPERIMENTAL MATERIALS

A high school football game was videotaped by two camera operators using professional quality field cameras. One camera was located on the sidelines to provide an on-the-field perspective; the other was elevated and located on the 50 yard line. The latter camera provided the bulk of the basic shots used in presenting the game. Both cameras were equipped with built-in microphones. Natural sound was recorded and later mixed with play-by-play and color commentary provided by experienced professional sportscasters.

The game featured two western Alabama class 1A high school teams, Hale County versus Northside. Small schools were used to limit the number of research participants who might recognize the team or players. To reduce the potential effects of sportsfanship due to geographic loyalty, the alleged location of the game was altered to fictitious Pierce County, Mississippi. The names of the teams were also changed. The Hale County Wildcats became the Southland Saints, and the Northside Rams became the Bradford Blue Bandits. This was done to enhance the anonymity of the teams and to aid in the manipulation of disposition. Play was selected and edited so that visually identifiable school names or symbols were not presented.

Four separate versions of the game were created (low suspense/unfavorable outcome, low suspense/favorable outcome, high suspense/unfavorable outcome, high suspense/favorable outcome). To facilitate the creation of at least mild dispositional variations, the Southland Saints were presented as positively as possible via commentary and play selection whereas the Bradford Blue

Bandits were presented somewhat negatively via play-by-play and color commentary. This dispositional manipulation was consistent across all versions of the videotape.

Manipulation of Suspense

The manipulation of level of suspense was accomplished via (a) variations in play selection and (b) variations in play-by-play and color commentary. In both suspense conditions, a total of 4 minutes and 38 seconds of the video were exactly the same, although variations and potential manipulation of suspense continued in the audio portion of the sportscast. The inclusion of the segments with visually common play was designed to permit a more controlled assessment of the effect of the suspense manipulation on enjoyment of the sportscast with "plays"—the actual action—held constant.

In the low-suspense condition, the first 3 minutes and 6 seconds of action presented a series of dull, uneventful plays. The norm was "three failed runs and a punt." The remaining 6 minutes and 37 seconds prior to the manipulation in outcome visually presented somewhat more successful and interesting action. It was necessary to incorporate somewhat more involving play at this point to ensure some parity (with divergent color commentary and play-by-play announcing) with the high-suspense condition and because the play selection had to lead to a plausible outcome. The play-by-play and color commentary employed throughout the low-suspense condition focused on elements such as the sloppy condition of the playing field, the lack of importance of this game for conference standings, the poor seasons both teams were experiencing, and the like.

In the high-suspense condition, more eventful and successful plays were used to create a more exciting and involving version of the game. The commentary emphasized the importance of the game for each team (the winner would advance to the state playoffs). A variety of other dramatic motifs that have been demonstrated to affect suspense (Bryant, Comisky, & Zillmann, 1977) were incorporated into the play-by-play and color commentary. Even during the 3 minutes and 6 seconds common to the low-suspense version, the commentary emphasized elements designed to heighten the suspensefulness of the presentation.

Manipulation of Outcome

Outcome manipulation was independent of suspense manipulation. In fact, the manipulation of outcome was accomplished via a single play, presented as the final play of the game. In this play, the Southland Saints attempted a field

goal. In both the high- and the low-suspense conditions, it was emphasized that this play would determine the game's outcome. In the unfavorable outcome condition, the field goal was missed and the game was presented as ending in a tie. In the favorable outcome condition, the field goal was successful and the Southland Saints emerged victorious.

DEPENDENT MEASURES

Enjoyment

Participants' enjoyment of play was assessed via an electronic "program anlayzer" procedure employed during viewing and via questionnaire items presented after exposure to the stimulus.

The ratings of enjoyment during viewing were taken eight times during the presentation of the football game at Minutes 0, 2, 4, 6, 8, 9, immediately prior to the attempted field goal, and immediately after the success or failure of the field goal had been established. Participants rated their enjoyment each time a light, located just above the television set, was switched on. Located in front of each participant was a panel of seven push buttons. The push-button panel was presented as an enjoyment rating scale via which participants were to report their enjoyment of the portion of the game that they had just seen. The push buttons were numbered from -3 to +3, with -3 labeled *hated it* and +3 labeled *loved it*. The participants ratings were recorded on an Esterline Angus 24-channel event recorder.

Participants' overall enjoyment of the sportscast was assessed via responses to two items on the 19-item questionnaire administered immediately after exposure to the stimulus. The initial enjoyment question was quite direct and was worded, "How much did you enjoy watching the portion of the football game you just saw?" The response scale was numbered from 0 to 10, with 0 labeled *not at all* and 10 labeled *very much*. The second enjoyment item was worded, "How boring was the portion of the football game you just saw?" The response scale was identical to that of the the other enjoyment item, except that the poles on this item were labeled *not at all boring* and *very boring*.

Perceived Suspense

Items 6 through 9 were designed to assess the effectiveness of the manipulation of suspense. The most direct item, Item 9, asked, "How suspenseful was the game?" It featured a scale identical to those used in assessing enjoyment, except that the poles were labeled *not at all suspenseful* at 0 and *very suspenseful* at 10. Items 6 through 8 were less direct and were worded, respectively, "How

exciting was the portion of the football game you just saw?," "How dull was the portion of the football game you just saw," and "How anxious were you about the outcome of the game?," with the poles labeled corresponding to the key descriptor.

Checks on Disposition

Because it has been asserted that, for suspense to occur, the audience has to care at least somewhat about the teams or players involved (Zillmann et al., 1989), four items included on the questionnaire were designed to assess participants' disposition toward the two teams. Item 10 asked, "How much did you like the Southland Saints?," with response options of not at all at 0 and very much at 10. Item 11 was worded, "How badly did you want the Southland Saints to win?," with response items identical to those of Item 10. Items 12 and 13 asked the same questions about the Blue Bandits.

PROCEDURE

The investigation was conducted in a research laboratory that was equipped with partitions so that two participants could view the television monitor without visual contact with each other. Another partition separated the experimenter and the event recorder from the participants.

When both participants arrived, they were seated side by side, 4 feet apart, separated by a partition; they faced a television monitor that was located 5 feet in front of them, slightly above eye level. A set of tape-recorded instructions introduced the participants to the alleged purpose of the investigation. They were told that the study in which they were to participate was part of a marketing study being conducted by the Institute for Communication Research as an agent for a Mississippi cable company that was attempting to determine the feasibility and marketing potential of inexpensively presenting high school football games on its cable system. The instructions described the procedure to be employed and the equipment to be used. The taped instructions also introduced the participants to the consent form, which they reviewed before signing. Following the instructions, the participants experimented with the panel of push buttons. After any ensuing questions or discussion, the participants each viewed one version of the experimental materials, with viewing condition determined by random assignment. Participants reported their enjoyment at eight points during the presentation via the program analyzer. After viewing, a 19-item questionnaire was administered to the participants. Participants were then debriefed, thanked, and dismissed. The entire procedure took approximately 25 minutes to complete. Debriefing was accomplished via written description distributed to each participant.

DATA ANALYSIS

The data for the eight program analyzer enjoyment ratings obtained during viewing were analyzed by a $2 \times 2 \times 2$ repeated measures analysis of variance. Level of suspense, outcome, and gender served as the fixed factors. Rated enjoyment of the game was the repeated measure factor. The questionnaire data were analyzed by a $2 \times 2 \times 2$ analysis of variance. Level of suspense, outcome, and gender served as the fixed factors. Responses to the questionnaire items served as the dependent measures.

RESULTS

Checks on the Manipulation of Level of Suspense

Five items on the postviewing questionnaire served as checks on the suspense differentiation. The results revealed that the suspense manipulation was quite effective, with mean differentiation as desired on all items: For "How suspenseful was the game?," low suspense = 2.32 and high suspense = 5.47, F(1, 103) = 47.74, p < .001; for "How exciting was the portion of the football game you just saw?," low suspense = 3.00 and high suspense = 4.96, F(1, 103) = 21.98, p < .001; for "How boring was the portion of the game you just saw?," low suspense = 5.23 and high suspense = 3.88, F(1, 103) = 6.37, p < .01; for "How dull was the portion of the game you just saw?," low suspense = 5.36 and high suspense = 3.43, F(1, 103) = 16.44, p < .001; and for "How anxious were you about the outcome of the game?," low suspense = 3.61 and high suspense = 5.62, F(1, 103) = 13.86, p < .001.

Checks on the Manipulation of Disposition Toward the Teams

Four questions were designed to check on the success of the manipulation of liking of the two teams. The most direct pair of questions asked, "How much did you like the Southland Saints (Blue Bandits)?" A t test was employed to assess differences in liking of the Southland Saints versus the Blue Bandits. The results were t(103) = 2.93, p < .004. The mean for liking of the Southland Saints was 4.59 whereas the mean for liking of the Blue Bandits was 4.06.

For the question asking, "How badly did you want the Southland Saints (Blue Bandits) to win?," the t test results were t(103) = 3.20, p < .002. The mean score for wanting the Saints to win was 4.75 whereas the mean score for wanting the Blue Bandits to win was 3.81.

The variation in disposition toward the two teams was successful, both in magnitude and direction.

Rated Overall Enjoyment

A general rating of enjoyment was obtained in response to the question, "How much did you enjoy watching the portion of the football game you just saw?" The analysis of variance performed on responses to this question yielded statistical significance, F(1, 103) = 6.35, p < .01. The mean for the high-suspense condition (M = 4.64) was significantly higher than that for the low-suspense condition (M = 3.63). Clearly, enhanced suspense resulted in increased enjoyment.

The main effect for outcome on the enjoyment measure failed to reach acceptable levels of significance, F(1, 103) = .55, p > .05. By contrast, the main effect for gender was significant at F(1, 103) = 5.40, p < .05. The resulting mean scores were male = 4.62 and female = 3.70, indicating that males liked the sportscast better than did females. No interaction reached acceptable levels of significance.

Intermittent Measures of Enjoyment Assessed During Viewing

Participants' ratings of enjoyment obtained while they watched the sportscast (electronic on-line assessment) are reported on a 7-point scale that ranged from -3 (hated it) to +3 (loved it). Results from the repeated measures analysis of variance yielded strong effects for suspense, F(7, 322) = 7.80, conservatively corrected, p < .001. As can be seen from Table 1 and Figure 1, in general, the high-suspense version was rated as more enjoyable than the low-suspense version. Except for Minute 4, when an unexpected reversal in the trend occurred, even those mean differentiations that failed to reach acceptable levels of significance were in the same direction.

Reported enjoyment as a function of favorable versus unfavorable outcome was a pseudo-variable except during the final measure of enjoyment, when outcome was indeed varied. An analysis of variance conducted on scores for this final measure of rated enjoyment indicated that the favorable outcome (M = 1.24) was enjoyed to a significantly greater extent than was the unfavorable outcome (M = .24), with F(1, 90) = 5.20, p < .05.

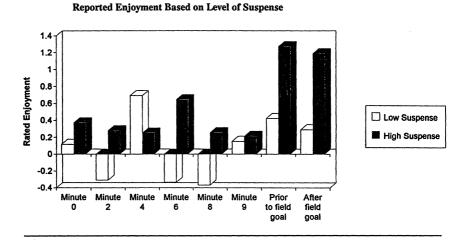
In correspondence with the significant effect of gender that resulted from the analysis of the general questionnaire rating of enjoyment, analyses of variance for the push-button measures of enjoyment also yielded statistical significance. Overall, males (M = .56) enjoyed the sportscast significantly more than did females (M = .07), F(1, 90) = 6.43, p < .05. As can be seen from an examination of Table 1, the only significant differences in mean scores by gender occurred during the first three measures (Minutes 0 through 4), during which time males reported significantly higher levels of enjoyment than did females. Although the pattern of mean differentiations remained consistent

TABLE 1
RATED ENJOYMENT DURING VIEWING BASED ON LEVEL OF SUSPENSE, GENDER, AND OUTCOME

	Suspense Level		Participant Gender		Outcome	
Elapsed Time	Low	High	Male	Female	Favorable	Unfavorable
Minute 0	0.117 ^a	0.375 ^a	0.555 ^b	-1.050 ^a	0.26 ^a	0.245 ^a
Minute 2	-0.309^{a}	0.284 ^b	0.296 ^b	-0.320^{a}	-0.005^{a}	-0.019^{a}
Minute 4	0.691 ^a	0.256 ^a	0.816 ^b	0.131 ^a	0.486^{a}	0.461 ^a
Minute 6	-0.335 ^a	0.646 ^b	0.363^{a}	-0.042^{a}	0.162^{a}	0.116 ^a
Minute 8	-0.367^{a}	0.259 ^b	0.112^{a}	-0.220^{a}	0.264^{a}	-0.369 ^a
Minute 9	0.152^{a}	0.216 ^a	0.381 ^a	-0.175^{a}	0.47^{a}	-0.265 ^a
Immediately prior to attempted						
field goal	0.424^{a}	1.275 ^b	1.049 ^a	0.650 ^a	1.332 ^a	0.367 ^b
Immediately after successful or faile	ed.					
field goal	0.292 ^a	1.190 ^b	0.875 ^a	0.607 ^a	1.241 ^a	0.241 ^b

Note: Means having different superscripts differ significantly at p < .05. Comparisons are horizontal and within independent variable only.

FIGURE 1
REPORTED ENJOYMENT BASED ON LEVEL OF SUSPENSE



throughout the viewing session, the latter five sets of scores failed to differ at acceptable levels of statistical significance.

Contrary to findings from other research examining the effects of suspense on the enjoyment of televised sports (e.g., Sapolsky, 1980), the present study yielded clear evidence in support of the suspense hypotheses: If spectators' dispositions toward the victorious team are positive, then high levels of suspense contribute to heightened enjoyment of the sportscast and of the game.

In the present investigation, viewing a more suspenseful version of the sportscast of a high school football game made the game seem more enjoyable, less boring, more exciting, and less dull. Correspondingly, under conditions of high suspense, viewers reported that they were more anxious about the outcome, wanted the liked team to win more, and liked the victorious team more.

A critical design element in the study was to ensure identification with one of the teams. It has been demonstrated that arousal levels in individuals witnessing a sporting contest increase in direct correspondence to team or player identification (Branscombe & Wann, 1991). The results on the four questions designed to check on the success of the manipulation of liking of the two teams revealed that not only did the spectators like the proper team (Southland Saints) better, they wanted that team to win. This suggests that appropriate affiliation permitted the sort of "rooting" that is required for suspense to occur. Obviously, any such manipulation in dispositional affiliation is modest compared to that occurring in real sportsfanship, when school loyalty, regional affinity, or superior knowledge of a team's player and coaching personnel allow really powerful affiliation to occur. Only under such conditions would extremely robust levels of suspense be expected to occur. In other words, in the "real world," the effects of disposition created in this laboratory study should be much more critical than those in the present situation.

The finding that men liked the sportscast more than did women is consistent with other research regarding gender (Gantz, 1981, 1985) and is also in line with conventional wisdom. Even though gender differences did emerge, it should be noted that these differences regarding overall liking or disliking of the sportscast appeared to result from differences in enjoyment that occurred only during the early minutes of the sportscast, as determined by the on-line electronic assessment of enjoyment. Gender differences seemed to diminish during the course of viewing, as emotional involvement with the drama of the game seemed to override any predispositions derived from societal sex roles.

The other key variable in the study, outcome, yielded results that are generally consistent with prior research. Sports spectators prefer to see a liked team win. This phenomenon seems to be at the heart of that which we call rooting, which apparently is one of the universals in sport spectatorship—live or mediated.

This research brings sports into the field of other entertainment genres for which pronounced effects of suspense on enjoyment have already been noted (e.g., drama, horror, humor). Moreover, it demonstrates again the potency of excitation-transfer theory as an explanatory mechanism in entertainment. And, once again, it indicates the potency of play selection and commentary in altering television viewers' perceptions of play and enjoyment of their games.

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