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Empirical - Sport

The Influence of Fantasy Sport Participation on Fans' Perceptions of the Impact of the Legalization of Sport Wagering

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Abstract

As states look for ways to increase revenue, many are making attempts to increase the availability of legalized sport wagering. Extending previous work designed to further our understanding of how such actions could potentially impact sport fandom, the current study examined the impact of prior participation in fantasy sports, a pastime sharing much in common with sport gambling. The findings revealed that level of participation in fantasy sports were related to expectations of increased sport wagering, should such opportunities become more available. However, fantasy sport participation was not related to expected changes in sport interest or consumption.

Keywords: Sport; Fantasy Sport, Sport Wagering, Sport Fans, Fan/Consumer Behavior

Until recently, as a consequence of the 1992 Professional and Amateur Sports Protection Act and the 2006 Unlawful Internet Gambling Enforcement Act, only a few U.S. states could legally accept sport wagers. However, several states expressed interest in also offering sport gambling (i.e., wagering – these terms will be used interchangeably in this work), hoping it would increase state revenues. Initially, professional and collegiate sport leagues fought the increased legalization of sport gambling, often arguing their brand(s) would be damaged by the change. A key argument was that legalized sport wagering would negatively affect the sport fan experience (Tuohy, 2013; Wann & James, 2019). In late 2017, the U.S. Supreme Court heard arguments in a case involving the increased legalization of sport gambling. Many believed they would vote in favor of allowing all states to offer legalized sport wagering (Waldron, 2017), thus allowing fans to have increased access to this activity. Indeed, in May 2018, the Supreme Court struck down the 1992 law (Liptak & Draper, 2018), thereby permitting states to pursue offering legalized sport wagering opportunities.

Recently, Wann and his colleagues conducted a pair of studies investigating how the increased availability of legalized sport gambling might impact fan experiences. Wann et al. (2015) examined the impact of sport fandom and economic motivation (i.e., interest in sport to bet on games). The results indicated that, should legal sport gambling become more accessible, persons higher in fandom and economic motivation believed they would be more likely to gamble on sporting events, and that their interest in and consumption of sport would increase. Wann and colleagues (2017) investigated participants' expectations of the impact of increased availability of legalized gambling and the extent to which other motives played a role in their perceptions. Several motives (including economic) were significant predictors of expected reactions to legalized sport wagering. For some persons, the sport experience would be enhanced by sport gambling (i.e., those motivated by eustress), while those high on other motives would be negatively affected (i.e., those motivated by escape).

The Current Investigation

Fantasy sport and sport gambling share a number of similarities, justifying comparisons between the two activities (Drayer et al., 2013; Lee et al., 2011). For example, both pastimes involve skill as well as chance; performances can be facilitated by better skill (e.g., acquiring information to make better decisions) and greater luck (i.e., each activity has a component of

randomness). The current study was designed to investigate the relationship between participation in fantasy sports and perceptions of the impact of the increased legalization of sport gambling. Given that these activities share many commonalities, participation in fantasy sport may serve as a predictor of expectations of the impact of the increased legalization of sport gambling. The following hypotheses were tested:

Hypothesis 1: As access to legal sport wagering becomes more available, greater levels of fantasy sport involvement would be associated with increased wagering.

Hypothesis 2: As access to legal sport wagering becomes more available, greater levels of fantasy sport involvement would be associated with increased interest in sport.

Hypothesis 3: As access to legal sport wagering becomes more available, greater levels of fantasy sport involvement would be associated with increased sport consumption via attendance (Hypothesis 3A) and televised sport (Hypothesis 3B).

Hypothesis 4: As access to legal sport wagering becomes more available, greater levels of fantasy sport involvement would be associated with the belief that wagering on athletic contests would increase the excitement of a sporting event.

Method

Participants

The original sample consisted of 1028 students attending one of five U.S. universities located in states in which sports wagering was illegal prior to the overturning of the 1992 Professional and Amateur Sports Protection Act.

Thirty-one individuals returned incomplete questionnaires and were removed from consideration, resulting in a final sample of 997 persons (435 male; 559 female; 3 not reporting). Participants had a mean age of 20.62 years ($SD = 2.92$). With respect to race, 62% reported being "European/Anglo American or white," 16% "African American; of African descent," 13% "Latino," 3% "Asian American; of Asian descent," 5% "Biracial", <1% "Native American", and < 1% "Other" (2 persons declined to indicate race). Participants were recruited from specific courses or participant pools in which they could choose to participate in many different studies.

Materials and Procedure

Following IRB approval from each institution, participants were tested in group settings in university classrooms. Upon arriving and providing their consent, participants received a questionnaire packet with five sections. The first section assessed age, gender, and race/ethnicity. The next portion contained the five-item Sport Fandom Questionnaire (SFQ; Wann, 2002) to assess the extent to which the participants identified with the role of sport fan. Response options ranged from 1 (*strongly disagree*) to 8 (*strongly agree*). Therefore, higher numbers corresponded with higher levels of fandom.

The third section contained the three items comprising the economic motivation subscale (ECO) of the Sport Fan Motivation Scale (SFMS; Wann, 1995). The ECO assesses the extent to which individuals enjoy following sport for the opportunity to place wagers on the events. Response options to the SFMS items ranged from 1 (*this is not at all descriptive of me*) to 8 (*this is very descriptive of me*). As a result, higher numbers indicated greater amounts of this motive.

Section four contained a single item assessing the degree to which participants were involved in fantasy sport. Used in previous work (Wann et al., 2013), this item asked participants “How involved are you with fantasy sports?” Respondents were given five responses options:

- (1) Not at all involved, I never play fantasy sports
- (2) Slightly involved, I play fantasy sports occasionally but do not follow my team closely
- (3) Moderately involved, I usually play fantasy sports and try to keep up with them somewhat
- (4) Highly involved, I almost always play fantasy sports and keep up with the teams regularly
- (5) Die-hard fantasy sports involvement, I play multiple fantasy sports (sometimes more than one team at once), keep up with the teams on a regular basis, and consider fantasy sports one of my biggest hobbies

The final portion of the questionnaire packet contained nine items previously used to determine the potential impact of the increased the legalization of sport wagering (Wann et al., 2015, 2017). Two of these items assessed likelihood of wagering (sport wagering in general and wagering on one's favorite teams). Specifically, participants were asked: “If gambling/wagering on professional and college sporting events were made legal (i.e., you could legally wager on live sporting events at nearby casinos and racetracks), which of the following best represents you?” Participants circled a response option ranging

from 1 (*I would never bet on sporting events*) to 6 (*I would be certain to bet on sporting events*). The statement “involving my favorite teams” was added to responses for the item targeting favorite teams.

The next six items examined beliefs in the impact of legalized wagering on interest in sport, attendance, and sport television viewing. There were two items each for interest, attendance, and television viewing, one each targeting sport in general and one's favorite teams. Each of these items began: “If gambling/wagering on professional and college sporting events were made legal (i.e., you could legally wager on live sporting events at nearby casinos and racetracks), how do you feel it would impact your...” The interest in sport items ended with “interest in sport, in general?” and “interest in your favorite teams?”; the attendance items ended with “attendance at sporting events, in general?” and “attendance at sporting events involving your favorite teams?”; the television viewing items ended with “viewing of televised sporting events, in general?” and “viewing of televised sporting events involving your favorite teams?” Participants could choose from 1 (*it would decrease my interest/liability of attendance/liability of watching*) to 8 (*it would increase my interest/liability of attendance/liability of watching*). Thus, higher numbers indicated greater interest, attendance, and television viewing.

The ninth item examined the impact of sport wagering on the sport viewing experience. Participants read, “If you had placed a legal wager on a team and were watching that contest, how do you think that wager would impact you at a game?” and circled one of five responses: “it would have no impact,” “it would add a bit of excitement to the game,” “it would add a great deal of excitement to the game,” “it would be a bit of a distraction from the game,” or “it would be a huge distraction from the game.”

After completing the packet, respondents were thanked for their participation, debriefed, and excused from the session (sessions lasted approximately 15 minutes).

Results

Preliminary Analyses

Items comprising the ECO, SFQ, wagering, interest, attendance, and sport television viewing scales were combined to form indices of each. Means, standard deviations, and Cronbach's alphas appear in Table ..

Table 1
Means, Standard Deviations, and Reliability Alphas (Cronbach).

Measure	Men		Women		All		Alpha
	M	SD	M	SD	M.	SD	
Fantasy sport involvement	2.34	1.32	1.36	0.77	1.79	1.16	N/A
ECO	6.01	4.17	4.40	2.89	5.11	3.60	.850
SFQ	30.16	9.87	21.87	11.14	25.50	11.37	.958
Wagering	5.32	2.53	4.16	2.17	4.66	2.41	.897
Interest	9.61	3.11	8.41	3.62	8.94	3.46	.896
Attendance	9.41	3.08	7.99	3.49	8.61	3.39	.905
Television viewing	9.97	3.31	8.71	3.73	9.26	3.61	.935

Notes: SFQ = sport fandom, ECO = economic. A multivariate analysis of variance revealed a significant effect for gender, Wilks' Lambda $F(7, 986) = 38.94, p < .001$. Univariate tests revealed that men scored higher than women on all seven measures.

Tests of Hypotheses

The first three hypotheses were tested via four regression analyses in which gender, SFQ scores, ECO scores, and involvement with fantasy sports served as predictors of amount of sport wagering, interest in sport, sport attendance, and televised sport viewing. Gender (coded 1=male; 2=female), sport

fandom (SFQ scores), and following sport for the opportunity to wager (ECO scores) were included because past work had found these variables were significant predictors of fan reactions to the legalization of sport gambling (Wann et al., 2015, 2017). Correlations among the variables appear in Table 2.

Table 2
Correlations among the Variables.

	1	2	3	4	5	6	7	8
Fantasy sport involvement (1)	--							
Gender (2)	-.42	--						
SFQ (3)	.53	-.36	--					
ECO (4)	.29	-.22	.22	--				
Wagering (5)	.36	-.24	.38	.52	--			
Television viewing (6)	.24	-.17	.31	.35	.57	--		
Interest (7)	.22	-.17	.28	.34	.57	.86	--	
Attendance (8)	.26	-.21	.33	.39	.57	.78	.84	--

Notes: All correlations were significant at the $p < .01$ level.

The first regression examined Hypothesis 1 and revealed that the combined effect of the four predictor variables was significant, $F(4,789)=119.04, p<.001$ (see Table 3). As expected, fantasy sport involvement accounted for a significant proportion of unique variance in likelihood of wagering. Consistent with past research (Wann et al., 2015, 2017), both sport

fandom and tendencies to follow sport to wager on events were also significant predictors of likelihood of wagering. In contrast to prior work, gender did not account for a significant proportion of unique variance.

Table 3
Regression Equation with Fantasy Sport Involvement, Gender, Sport Fandom, and Economic Motivation as Predictors of Likelihood of Wagering.

Predictor variable	B	SE B	Beta	t	sig.
Fantasy sport involvement	0.344	0.068	0.165	5.04	***
Gender	-0.196	0.143	-0.040	-1.37	ns
SFQ	0.017	0.007	0.078	2.49	*
ECO	0.300	0.018	0.449	16.32	***
Overall R	0.570				
Overall R ²	0.325				
Adjusted R ²	0.332				
Overall F (9, 764)	119.04***				

Note: * = $p < .05$; ** = $p < .01$; *** = $p < 001$. SFQ = sport fandom, ECO = economic.

The next regression tested Hypothesis 2, revealing that the combined effect of the four predictor variables was significant, $F(4,789)=49.02, p<.001$ (see Table 4). However, in contrast to Hypothesis 2, fantasy sport involvement failed to account for a significant proportion of unique variance in sport

interest. Gender also was not a significant unique predictor. Replicating past efforts (Wann et al., 2015, 2017), both sport fandom and tendencies to follow sport to wager on events were significant predictors of interest.

Table 4
Regression Equation with Fantasy Sport Involvement, Gender, Sport Fandom, and Economic Motivation as Predictors of Interest in Sport.

Predictor variable	B	SE B	Beta	t	sig.
Fantasy sport involvement	0.050	0.109	0.017	0.46	ns
Gender	-0.197	0.228	-0.028	-0.86	ns
SFQ	0.062	0.011	0.202	5.79	***
ECO	0.278	0.029	0.290	9.46	***
Overall R	0.407				
Overall R ²	0.165				
Adjusted R ²	0.162				
Overall F (9, 764)	49.02***				

Note: * = $p < .05$; ** = $p < .01$; *** = $p < 001$. SFQ = sport fandom, ECO = economic.

The final two regressions focused on consumption. With respect to attendance (Hypothesis 3A), the regression indicated that the combined effect of the four predictor variables was significant, $F(4,789)=68.39, p<.001$ (see Table 5). However, Hypothesis 3A was not confirmed as fantasy sport involvement failed to account for a significant proportion of unique variance in attendance. Gender also was not a significant unique predictor. However, once again both sport fandom and tendencies to follow sport to wager on events were significant predictors.

As for televised sport viewing (Hypothesis 3B), the regression indicated that the combined effect of the predictors was significant, $F(4,789)=54.14, p<.001$ (see Table 6). However, similar to the previous analysis, Hypothesis 3B was not confirmed (fantasy sport involvement failed to account for a significant proportion of unique variance in televised sport viewing). Gender also was not a significant unique predictor, although both sport fandom and tendencies to follow sport to wager on events were once again significant predictors.

Table 5

Regression Equation with Fantasy Sport Involvement, Gender, Sport Fandom, and Economic Motivation as Predictors of Sporting Event Attendance.

Predictor variable	B	SE B	Beta	t	sig.
Fantasy sport involvement	0.057	0.104	0.020	0.55	ns
Gender	-0.290	0.216	-0.043	-1.34	ns
SFQ	0.070	0.010	0.234	6.91	***
ECO	0.305	0.028	0.324	10.92	***
Overall R	0.465				
Overall R ²	0.217				
Adjusted R ²	0.213				
Overall F (9, 764)	68.39***				

Note: * = $p < .05$; ** = $p < .01$; *** = $p < 001$. SFQ = sport fandom, ECO = economic.

Table 6

Regression Equation with Fantasy Sport Involvement, Gender, Sport Fandom, and Economic Motivation as Predictors of Sporting Television Viewing.

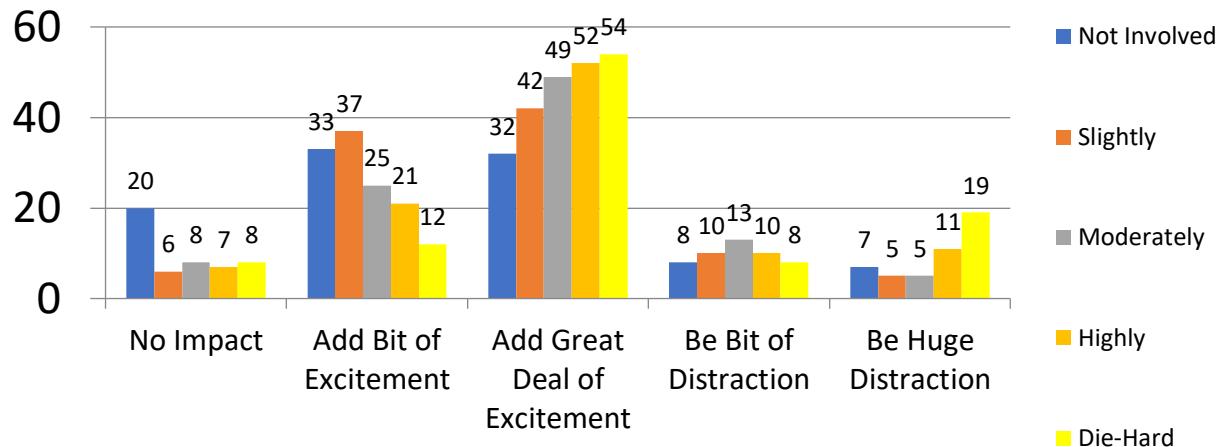
Predictor variable	B	SE B	Beta	t	sig.
Fantasy sport involvement	0.069	0.113	0.022	0.61	ns
Gender	-0.117	0.236	-0.016	-0.49	ns
SFQ	0.073	0.011	0.230	6.63	***
ECO	0.290	0.030	0.289	9.53	***
Overall R	0.424				
Overall R ²	0.180				
Adjusted R ²	0.176				
Overall F (9, 764)	54.14***				

Note: * = $p < .05$; ** = $p < .01$; *** = $p < 001$. SFQ = sport fandom, ECO = economic.

To examine Hypothesis 4, responses to the fantasy involvement item and the item assessing expected reactions to wagering on sporting events were examined via a Chi-square analysis. This test indicated that significant differences in frequencies were reported, $\chi^2(16)=70.16$, $p<.001$. The pattern of effects is depicted in Figure 1. An examination of the figure reveals several interesting patterns and partial support for Hypothesis 4. First, persons not involved with fantasy sport were more likely to indicate that

wagering would have no impact, relative to those reporting involvement across all levels. Second, as involvement with fantasy sport increased, persons were less likely to report that sport wagering would add a bit of excitement and more likely to expect wagering to add a great deal of excitement. Lastly, beliefs that wagering would be a large distraction were more frequent among persons with the highest levels of involvement in fantasy sports.

Figure 1.
Expected impact of wagering on a sporting event for persons involved or not involved with fantasy sports
(Numbers list are percentages).



Discussion

Previous research has focused on the potential impacts of the increased availability of legalized sport wagering on the attitudes and behaviors of sport fans. This work had found that, should legal sport gambling become more accessible, persons higher in sport fandom and those higher in economic motivation would be more likely to gamble on sporting events, and that their interest in and consumption of sport would increase (Wann et al., 2015). Additional work (Wann et al., 2017) found that other motives were also related to expected changes, such as escape. The current project extended past efforts by investigating how participation in fantasy sports may impact expected attitudinal and behavioral changes as a result of the increased availability of legal sport wagering.

One of the central findings of the current study was that participation in fantasy sports was related to expected increases in sport wagering as opportunities to legally gamble on sporting events increases. A number of authors have commented on the similarities between sport gambling and fantasy sport (e.g., Drayer et al., 2013; Lee et al., 2011; Wann et al., 2015), such as each involving both luck and skill. Thus, it seems reasonable that persons with an interest in fantasy sport may be more likely to increase their involvement in a similar pastime, in this case, sport wagering.

A second critical finding of the current work was that higher levels of participation in fantasy sport were related to greater expectations that wagering on sport would add a great deal of excitement *and* be a huge distraction to one's sport experience. Thus, as

individuals' participation in fantasy sport increased so too did their expectations that sport wagering would be a positive (i.e., exciting) and negative (i.e., distracting) presence to their sport experience. Perhaps this is a function of the type of fantasy sports played by the participants. That is, many fantasy sport participants participate in locally organized leagues with friends and coworkers that have little if any entry fee and, as a result, minimal monetary gains and losses for participation. However, other leagues have substantial costs for entry and the winners can receive hundreds or even thousands of dollars. It may be that participants who have participated in the more expensive fantasy sport leagues have become accustomed to the pressure of risking larger sums of money and, as a result, believe that sport wagering would increase their excitement. Conversely, those fantasy sport enthusiasts who have limited their experiences to free or nearly free leagues may not be comfortable with wagering larger sums of money and, therefore, expect that doing so via sport gambling will serve as a distraction. This line of research could be particularly informative given that there are different types of fantasy participation (e.g., daily versus seasonal), and motivational differences between different types of fantasy sport enthusiasts have been found (e.g., casual versus competitive players, see Woltring, 2020). Clearly, additional work is needed that includes type of player and form of play in the analyses. Such an investigation would likely extend

the current research which did not assess type of fantasy sport played.

Future Directions

Researchers wishing to extend this line of research can focus on the following areas. First, the participants in the present study were college students. It would be good to examine whether the noted relationships continue to be seen in older participants in gambling/fantasy sport and participants from the general population. Further, the current study examined attitudes and expectations of the participants. It could be that actual behaviors differ from the participants' attitudes. Future research should examine how the introduction of gambling in states has affected participation in fantasy sports. Finally, it may be of interest to complete longitudinal studies with participants who introduce gambling into fantasy sports and vice versa to see the effect of each of the experiences on the other.

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