

INFLUENCE OF COMPETITION LEVEL ON OBSERVED ANTISOCIAL BEHAVIOURS IN SOCCER PLAYERS

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ABSTRACT

This study examined the influence of competition level on observed antisocial behaviours in soccer players. Data corresponding to different categories of a soccer club were obtained by an archival method, using sanctions from 285 referees' game summary sheets. No antisocial behaviours were punished in the 7 to 9 years-old categories, with a progression thereafter until a maximum of 2.4 sanctions per game in the 21 years-old category. Significant differences emerged among players in the different categories for behaviours such as fault to gain possession of the ball, discussing the referee's decisions, holding and opponent, or delaying the restart of play. There were no sanctions for those behaviours in the lower categories, increasing their numbers from the 11-12 years-old category until the higher competitive levels. Other behaviours, such as making contact with the opponent before touching the ball, striking or threatening an opponent, and offensive or insulting language directed to the referee or to an opponent, first appeared in the 13-14 years-old players, but number of sanctions remained low and similar in the different competitive levels. Our data confirm that playing experience may be an important determinant of antisocial behaviours. However, the various types work differently, and are instrumental behaviours those that clearly increase as a function of competitive level.

Key Words: Antisocial behaviour, soccer, competition level, age

RESUMEN

En este estudio se examinó la influencia del nivel de la competición sobre las conductas antisociales observadas en jugadores del fútbol. Se obtuvieron datos correspondientes a diversas categorías de un club del fútbol a partir de las infracciones redactadas en 285 actas arbitrales. No se detectó ningún comportamiento antisocial en las categorías de 7-9 años, con una progresión en categorías superiores, hasta un máximo de 2,4 sanciones por partido en la categoría de 21 años. Se observaron diferencias significativas para conductas tales como falta en la disputa del balón, protestar decisiones arbitrales, agarrones o pérdida de tiempo. Dichas conductas no estaban presentes en las categorías más bajas, aumentando su número a partir de las categorías de 11-12 años hasta los niveles competitivos más altos. Otros comportamientos tales como falta sin disputa del balón, amenazas a contrarios, o insultos al árbitro y a contrarios no se ponían de manifiesto hasta las categorías de 13-14 años, pero el número de sanciones seguía siendo bajo y similar en los diversos niveles competitivos. Nuestros datos confirman que la experiencia puede ser un determinante importante de los comportamientos antisociales. Sin embargo, existen diferencias entre sus distintos tipos, siendo los de carácter instrumental los que aumenta claramente en función de nivel competitivo.

Palabras clave: Conductas antisociales, fútbol, nivel de competición, edad

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Fecha de recepción: 25/06/2007

Fecha de aceptación: 20/11/2007

INTRODUCTION

The role of sport in developing moral competence and sportspersonship orientations among young athletes has been the object of an increasing number of studies during the last two decades (Kavussanu, Seal, & Phillips, 2006). Moral behaviour has been typically defined as low frequency of engagement in negative social acts such as cheating and aggressive behaviours (Kavussanu & Ntoumanis, 2003), and different approaches have been used to examine the psychological underpinnings of antisocial behaviours (Kavussanu, 2006). The defining characteristic of such behaviours is that they have negative consequences for another individual or group of individuals, and most authors consider, in accordance with the social learning framework (Bandura, 1962), that social influences, such as role models and reinforcement, and situational factors contribute to learning and expressing antisocial behaviours. Most evidence supporting this theory comes from outside the sporting domain. Thus, it has been shown that children exposed to videogames and movies supporting violent behaviours often exhibit increased levels of aggression following the exposure (Anderson & Dill, 2000). In general, this body of literature appears to confirm that the behavioural repertoire of individuals is predominantly influenced by their significant others and by the cultural norms that are disseminated through the media (Gee & Leith, 2007). In sport contexts it has been found that ice hockey amateur's players perceptions of coaches, parents, and teammates acceptance of aggression was significantly related to those athletes penalty records (Smith, 1974; Loughhead & Leith, 2001). More recently, it has been reported that hostile feelings and illegitimate behaviours in youth soccer may result from encouragement by coaches of a performance-oriented atmosphere (Ommundsen, Roberts, Lemyre, & Treasure, 2003), and that a high performance/high mastery climate significantly predicts the legitimacy of intentional injurious acts among youth football players (Miller, Roberts, & Ommundsen, 2005).

Sport is actively involved in the individual's socialization and different authors have pointed out the ambiguous relationship that appears to be building up between sport and antisocial behaviours, more specially in competitive sports where scoring and winning is predicated on the successful use of violence. Competitive sports frequently reward aggressions even though they are contrary to social norms, and players, especially males, had a tendency to consider aggressive and other antisocial behaviours as more legitimate than individuals practising no sports (Bredemeier, 1994). A structural factor that may significantly affect the presence of antisocial behaviours in sports and the

perception of their legitimacy is the competitive level. Research examining the relationship between level of play and measures of aggression such as fighting (Bloom & Smith, 1996) and total penalty minutes (Weinstein, Smith, & Wiesenthal, 1995) have shown in ice hockey players that as level of play increases acts of aggression also increase. It is also known that the number of instrumental aggressive behaviours in soccer is significantly higher in national level players than in lower competitive levels (Coulomb & Pfister, 1998), and that antisocial behaviours are more frequent at middle and late adolescence among male soccer players (Kavussanu et al., 2006). Moreover, sport aggression is perceived as being more legitimate as the level of competition increases (Conroy, Silva, Newcomer, Walker, & Johnson, 2001).

Because rule breaking behaviours have to be punished by referees, antisocial behaviours may be examined by means of sanctions using the archival method from game reports. The advantages of this method are that numerous data may be easily used and avoids the social desirability response (Coulomb & Pfister, 1998; Rascle, Coulomb, & Deisarte, 2005). However, it has been criticized by Kirker, Tennenbaum and Mattson (2000) on the basis of the major shortcoming caused by missed calls. According to these authors, referees possess limited attentional resources and it is possible that some behaviours go unseen. Nevertheless, it has been demonstrated in a sport such as ice hockey, with a high degree of speed and physicality, that less than 5% of aggressive acts, as recorded by two independent observers, go unseen by the game official (Kajory & Cahoon, 1992). In consequence, the fact that not all antisocial acts are penalized most probably has little impact in study approaches in which game reports are used as operational indices (Gee & Leith, 2007).

The main purpose of our study was to examine the influence of competition level on the different types of antisocial behaviours in Spanish soccer players by an archival method, using sanctions from referees' game summary sheets. It was hypothesized that as experience increases engagement in antisocial behaviours of an instrumental character also increases.

METHOD

Participants

Data corresponded to 252 players from the different categories of the CD Manuel Rubio, an urban club from the Ceares quarter in Gijón (Spain): *Pre-Benjamín* (7 years-old), *Benjamín B* (8 years-old), *Benjamín A* (9 years-old), *Alevín B* (10 years-old), *Alevín A* (11 years-old), *Infantil B* (12 years-old), *Infantil A* (13 years-old), *Cadete B* (14 years-old), *Cadete A* (15 years-old), *Juvenil B* (17 years-old), *Juvenil A* (18 years-old), and *Regional* (21 years-old).

Procedures

Measure of actual antisocial behaviours was obtained by an archival method, using sanctions from 285 referees' game summary sheets during the 2006-2007 season. Following a methodology similar to that previously described by Kavussanu et al. (2006), a list of antisocial behaviours ($n = 17$) was constructed from previous observation of soccer games and consultation of independent soccer players and referees. No other behaviour was necessary to be added following examination of the game sheets.

Number of sheets examined in each category is shown in Table 1. Since referees are rotated randomly through the various categories and age levels, it may be assumed that errors in observation and interpretation were distributed evenly (Loughhead & Leith, 2001).

The soccer club was contacted to obtain permission to analyze the game summary sheets and it was assured that all the information would be kept confidential.

Statistical analysis

Number of sanctions for different antisocial behaviours in the different competitive categories was compared by chi-square analysis. Relationship among number of sanctions and classification at the end of the season was examined by Pearson correlation coefficients. A SPSS+ vrs. 14.0 statistical software (Chicago, IL) was used.

TABLE 1
Number of examined referee's game summary sheets in each category.

<i>Category</i>	<i>Number of sheets</i>
Pre-Benjamín	20
Benjamín B	20
Benjamín A	21
Alevín B	25
Alevín A	22
Infantil B	23
Infantil A	25
Cadete B	26
Cadete A	27
Juvenil B	24
Juvenil A	22
Regional	30

RESULTS

Analysis of game summary sheets demonstrated the existence of sanctions for the seventeen different aggressive behaviours. Number of sanctions for each behaviour in the total sample is shown in Table 2. As can be observed, the most frequent behaviour was fault to gain possession of the ball, followed by discussing the referee's decisions, and by delaying the restart of the play.

TABLE 2
Number of sanctions for each antisocial behaviour in the total sample.

<i>Aggressive behaviour</i>	<i>Number</i>
Fault to gain possession of the ball	113
Discussing the referee's decisions	59
Delaying the restart of play	26
Holding an opponent	14
Touching the ball with hands	9
Obstructing the progress of an opponent	8
Offensive or insulting language directed towards the referee	8
Threatening the referee	7
Making contact with the opponent before touching the ball	6
Inadequate behaviour	6
Trying to strike the referee	5
Striking an opponent	4
Threatening an opponent	4
Offensive or insulting language directed towards an opponent	2
Racist behaviour	1
Entering the field of play without the referee's permission	1
Offensive attitude towards spectators	1

Figure 1 indicates the main number of sanction per game from the subsamples divided according to the different categories. No antisocial behaviour was detected by the referee's in the 7 years-old to 9-years-old categories, with a progression thereafter until a maximum of 2.4 sanctions per game in the 21 years-old category.

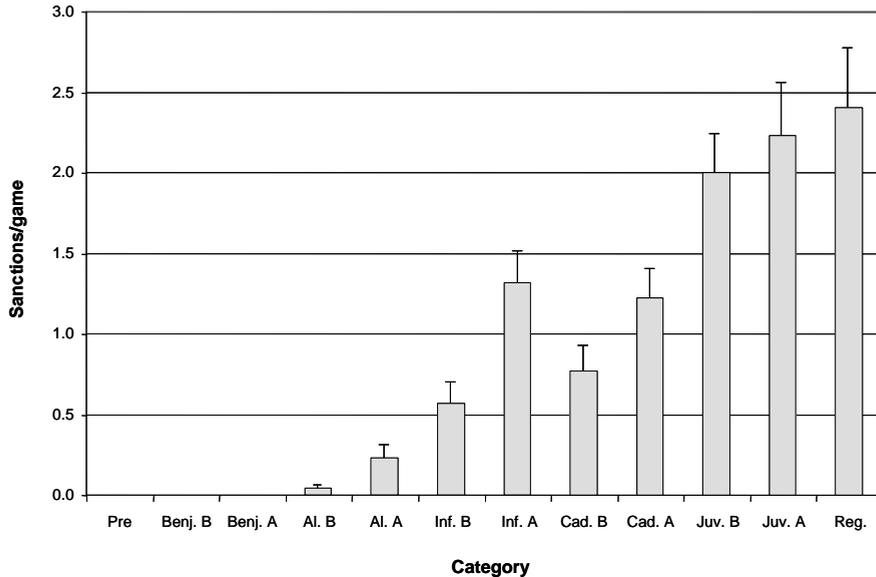


FIGURE 1. Number of sanctions per game in each competitive category. Mean value \pm SEM.

Data in Table 3 summarize number of sanctions corresponding to the different antisocial behaviours in the various competitive categories. Chi square analysis indicate that significant differences emerged among players in the different categories for a series of antisocial behaviours: fault to gain possession of the ball [$\chi^2(n = 113) = 12.50, p < 0.01$], discussing the referee's decisions [$\chi^2(n = 59) = 9.30, p < 0.01$], holding an opponent [$\chi^2(n = 26) = 6.50, p < 0.05$], or delaying the restart of play [$\chi^2(n = 14) = 5.35, p < 0.05$]. No sanctions for those behaviours appeared in the lower categories, increasing their numbers from the *Alevín A* (11 years-old) and *Infantil B* (12 years-old) categories until a maximum was reached in the higher competitive levels. Other behaviours, such as making contact with the opponent before touching the ball, striking to an opponent, threatening to the referee or to an opponent, and offensive or insulting language directed to the referee or to an opponent, first appeared in the *Infantil A* (13 years-old) or *Cadete B* (14 years-old) categories, but number of sanctions remained generally low and very similar in the different competitive levels.

TABLE 3
Number of sanctions for different antisocial behaviours in each competitive categorie.

	<i>Category</i>											
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>	<i>12</i>
Fault to gain possession of the ball	-	-	-	-	3	6	12	7	12	10	29	34
Discussing the referee's decisions	-	-	-	1	1	4	6	6	6	12	4	20
Delaying the restart of play	-	-	-	-	1	1	4	1	4	6	3	6
Holding an opponent	-	-	-	-	-	1	1	-	2	2	4	4
Touching the ball with hands	-	-	-	-	-	-	1	1	1	4	-	2
Obstructing the progress of an opponent	-	-	-	-	-	-	-	2	-	2	4	-
Offensive or insulting language directed towards the referee	-	-	-	-	-	-	1	1	1	2	1	2
Threatening the referee	-	-	-	-	-	-	3	-	3	-	-	1
Making contact with the opponent before touching the ball	-	-	-	-	-	-	1	-	1	3	1	-
Inadequate behaviour	-	-	-	-	1	-	-	2	-	1	1	1
Trying to strike the referee	-	-	-	-	-	-	1	-	1	3	-	-
Striking an opponent	-	-	-	-	-	-	1	-	1	-	1	1
Threatening an opponent	-	-	-	-	-	-	1	-	1	1	1	-
Offensive or insulting language directed towards an opponent	-	-	-	-	-	-	-	-	-	1	-	1
Racist behaviour	-	-	-	-	-	-	-	-	-	-	-	1
Entering the field of play without the referee's permission	-	-	-	-	-	-	-	-	-	1	-	-
Offensive attitude towards spectators	-	-	-	-	-	-	1	-	-	-	-	-

Category: Pre-Benjamín (1), Benjamín B (2), Benjamín A (3), Alevín B (4), Alevín A (5), Infantil B (6), Infantil A (7), Cadete B (8), Cadete A (9), Juvenil B (10), Juvenil A (11), and Regional (12).

Classification of the teams in the different competitive levels at the end of the season is shown in Table 4. Teams in the Alevín, Cadete, Juvenil and Regional categories reached positions in the upper 50% of the classification, while teams in the Pre-benjamín, Benjamín and Infantil categories were positioned in the lower 50% of the classification. No significant relationship

was observed among classification and total number of sanctions ($r = 0.53$; $p = 0.225$) or mean number of sanctions per game ($r = 0.54$; $p = 0.209$).

TABLE 4
Classification at the end of the season

<i>Team</i>	<i>Position</i>	<i>Number of teams</i>
Pre-benjamín	13	15
Benjamín	15	16
Alevín	7	15
Infantil	9	18
Cadete	1	15
Juvenil	7	17
Regional	6	18

DISCUSSION

A typology similar to that advanced McCarthy and Kelly (1978) and Loughead and Leith (20001) for ice hockey players may be used to categorize antisocial behaviours as either hostile or instrumental in nature. Thus, hostile behaviours would include striking the opponents, striking the referee, threatening the opponents or making contact with the opponent before touching the ball, while fault to gain possession of the ball, delaying the restart of play or holding an opponent would be instrumental behaviours. Finally, behaviours such as shouting to the spectators, or unauthorized entrance to the ground, may be considered neither instrumental nor hostile.

Our data indicate than the number of antisocial behaviours which could be considered essentially instrumental increased as a function of the competitive level, being higher in those players competing at a regional level. Results obtained coincide with previous reports indicating that in soccer or handball national level players the number of instrumental behaviours is higher in comparison to lower categories (Coulomb and Pfister, 1998; Coulomb & Rasclé, 2006). This has been explained by a more controlled and strategic use of antisocial behaviours as the competitive level rises, being such behaviours progressively perceived as performance-oriented (Ryan, Williams, & Wimer, 1990) and integrated as performance tools (Goodger & Jackson, 1985). Age and competitive level effects are intimately related, being the first reflected in increasing age and experience. Using different exploratory methodologies it has been found that, as players age increase, their attitude towards sport tend to professionalize and they become increasingly motivated by competition and victory (Duda, Olson, & Templin, 1991). In handball and soccer the main

number of aggressive behaviours per game increases from youth to adulthood (Pfister & Sabatier, 1994)

The explanation for this age-related increase in antisocial behaviours can be attributed, at least in part, to the socialization processes within the sport subcultures that encourage the demonstration of superiority over others and the behaviour intended to disadvantage the opponent (Kavussanu et al., 2006). Coaches may play an important role to this respect, having been demonstrated that as the competitive level increases coaches tend to more and more disagree with the referees and to express positive reinforcements to the players after instrumental aggressions (Rasclé, Coulomb, & Pfister, 1998). Coaches at higher competitive levels tend to favour result feedback rather than process feedback, leading to the adoption by players of a logic of performance to the detriment of fair play (Carpenter & Yates, 1997; Kavussanu, 2006). This may be associated to an additional factor, as is the increased of technical abilities as competitive level rises. Players in low categories may have difficulties to efficiently use instrumental aggressive behaviours as a tool for performance due to the need of experience and improvement of technical competences (Coulomb & Rasclé, 2006).

Hostile aggression has an underlying emotional component and the emotional response is an end in itself. However, it has also been reported that players may display less and less hostile aggressive behaviours as the competitive level raises, because that kind of response by looking like an obstacle to performance would be progressively inhibited (Coulomb & Pfister, 1998). Results from the present study indicate that sanctions for behaviours such as making contact with the opponent before touching the ball, striking to an opponent, threatening to the referee or to an opponent, and offensive or insulting language directed to the referee or to an opponent, which could be considered hostile aggression, were absent in young children, but remained clearly low in higher categories and there was no significant progression with age and experience. Although this kind of behaviours was not completely inhibited, it is also true that elite national or international competitive teams were not examined in the present study.

An interesting additional result derived from our study is the fact that antisocial behaviours appeared no to influence the performance and final outcome of the teams, because positions in the final classification were not related to the number of aggressive behaviours. Although previous research by some authors suggested that winners tend to be more aggressive than losers (Ryan et al., 1994), different studies have failed to support this hypothesis. In

fact our data are in the line with authors which have previously concluded that no relationship exists between the number of sanctions a team receives for unfair play and the outcome of the game or the season (McGuire, Courneya, Widmeyer, & Carron, 1992; Englehardt, 1995). Very recently it has been shown that no significant performance differences exist between European and American ice hockey players competing in a regular season, in spite of marked differences in aggressive behaviours (Gee & Leith, 2007). Even a negative relationship between performance and aggression has been occasionally reported (McCaw & Walker, 1999). This is a very interesting point, because in spite of the fact mentioned above that many coaches and players consider antisocial behaviours as an important strategy for winning, there are no evidences supporting the effectiveness of such relationship.

There are some limitations of this study that need to be noted. First, it was a cross-sectional research and longitudinal studies are required to demonstrate how antisocial behaviours develop with age and competitive level. Second, our investigation was archival in nature, which implies that only limited information about the players that committed the unfair acts was available and, information on their perceptions and subjective psychological features could have provide more comprehensive explanations for observed differences. In any case, our data confirm in Spanish soccer players previous studies indicating that the playing experience may be an important determinant of antisocial behaviour. Moreover, instrumental behaviours, which involve cognitive processes and may have a strategic role, are those that clearly increase as a function of competitive level. The present findings could help coaches and players to assume the importance of eliminating antisocial behaviours from the context of soccer.

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