

The role of superstition among professional footballers in Ghana

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Abstract

Superstitious behavior and beliefs are evident in all sports. The present study examines the self-report of superstitious behavior among 120 male professional footballers in Ghana. The Superstitious Ritual Questionnaire and Sport Attributional Style Scale were the instruments used to measure superstitious behavior and attributional styles of elite Ghanaian footballers. Significant negative correlations ($p < .05$) were found between number of rituals and scores for positive-externality (-0.27) and negative-externality (-0.17). A significant positive correlation was found between superstitious behaviour and positive-controllability (0.20). Simple correlations and multiple regression showed that scores for attributional styles significantly but weakly predicted scores on the Superstition Ritual Questionnaire, accounting for 11% of the variance with the latter measured.

This is important in understanding professional footballers' usage of superstitious rituals. Follow up work needs to address cross-cultural differences among Africans and Western professional athletes.

KEY WORDS: superstitious behavior, attributional style, rituals, professional footballers, sport, pre-performance routines and Ghana.

The role of superstition among professional footballers in Ghana

Superstition and pre-game rituals remain in sport despite advancement in sports science and technology. The presence of superstition permeates all major sports worldwide. Superstitious behaviours are clearly prevalent and have been extensively discussed in the popular media. From professional organizations to the local league team, the use of superstitious behaviour is evident from the media reporting of sporting events.

Superstition in sports can be defined as “actions which are repetitive, formal, sequential, and distinct from technical performance and which the athlete believes to be powerful in controlling luck or other external factors” (Bleak & Frederick, 1998, p.2). The repetitive nature of such events allows for the term ‘ritual’ to be used to describe these superstitious behaviors. A ritual in sport is usually defined as conscious activity involving heightened arousal with focused attention that provides a way of coping with a high stress situation (Wormack, 1992).

Superstitious practices in sports have been linked to the theoretical perspectives of attribution (Heider, 1958), achievement motivation (Weiner, 1990), reinforcement (Skinner, 1948), and locus of control (Rotter, 1966). Attribution theory is based on individual perceptions about success and failure and relates to the need for achievement. Weiner (1990) believed that when achievement is aroused, we tend to attribute our performance to a variety of possible causes or attribution elements, such as ability, effort, or luck.

Because of the diversity of attributions possible in sporting situations, some writers have suggested that research in sports should focus on causal dimensions

rather than the four basic elements (Hanrahan, 1995). Such dimensions include locus of causality (internal, external), stability (stable, unstable), and controllability (controllable, uncontrollable). However, the nature of attributional dimensions in sport has not been studied much in relation to athletes' ritualistic or superstitious behaviours. Research has found that participants who indicated on a measure of locus of control (LOC) that they believe their actions can control chance events were more likely to develop superstitious behaviour (Van Raalte, Brewer, Nemeroff, & Linder, 1991). In contrast, Bleak and Frederick (1998) found little support for the significant role of LOC in conjunction with several other constructs (level of competition, duration of play, type of sport, Type A personality, athletic identity, personal control, optimism and pessimism) in predicting overall use of superstitions among athletes.

Skinner (1948) discussed the acquisition of superstition as a conditioning process. However, the mere fact that reinforcement coincides temporarily with a response does not always mean that it is contingent upon the response. For instance, if a favourable consequence happens to coincide with a particular set of behaviours (i.e., rituals), it could serve as an accidental reinforcement that leads to the belief in a causal relation between the two. This connection might explain why athletes continue with their pre-game rituals especially after successful outcomes. Consequently, ritualistic behaviours are reinforced and maintained as a superstition, even though it may just be a coincidence as far as performance is concerned. Matute (1994) stated that superstitions are utilized to give the illusion of control over reinforcement in an uncontrollable situation.

Superstition may provide a means for athletes to cope with stress associated with competition and the uncertainty of sporting events. Superstitious behaviours,

therefore, are associated with management of anxiety and building confidence. The element of chance in sport contributes to player's feelings of uncertainty and lack of control. Such feelings may detract from confidence and contribute to elevated levels of anxiety (Van Raalte et al., 1991). It has been acknowledged that to feel some sense of certainty and to provide a means of feeling in control during competitive situations, many athletes practice some form of superstition (Wormack, 1992). Despite the apparent prevalence of superstitious behaviour in sports, literature on this subject is scant. Recent studies have examined superstitious behaviour as related to types of behaviour, athletic identity (AI) and locus of control among college athletes (Todd & Brown 2003; Bleak & Frederick, 1998). Todd and Brown (2003) found track and field athletes with an external locus of control were more likely to utilize superstitious behaviours. Perhaps the greatest problem is that much of the literature has been based on the above mentioned psychological constructs which does not allow the participants to state how they perceive their attributional styles in relation to their ritualistic behaviour in professional football.

According to sports lore, some playing positions have more rituals associated with them than others. In baseball, pitching and hitting are more likely to be associated with ritual than fielding (Gmelch, 1971). Gmelch's findings support the contention that risk is the primary factor in ritual, because pitching and hitting are "riskier" than fielding. In hockey, the goaltenders are considered to be more superstitious than other hockey players.

The purpose of the present study is to investigate the role of superstition and how it is perceived to be effective among professional Ghanaian Footballers, and assess

whether the degree of superstitious behavior practiced by footballers varies according to the position of the players. A secondary purpose of this study is to investigate how attributional styles of athletes can predict superstitious behaviour.

Method

Sampling

Participants. The participants were 120 male professional footballers who play their sport in the elite league in Ghana. The participants comprised 34 defenders, 19 midfielders, 13 goalkeepers and 54 attackers. The participants represent all the sixteen premier clubs in Ghana, with ages ranging between 18-32 (mean age=21 years, SD=3.2).

Measures

Superstitious Behavior: The Superstitious Ritual Questionnaire (SRQ; Bleak & Frederick, 1998) was slightly modified to measure superstitious beliefs, behaviour, and rituals. The minor modifications were made because some of the items were not relevant to football (soccer). The wording was also changed to make it culturally relevant to the Ghanaian footballer, examples being 'shake net after failing to score' and 'wear lucky charm on game days'. The original measure comprises 45 items, three of which were excluded because they do not apply to football. The questionnaire consisted of 42 questions separated into seven categories of superstitious behaviour including Clothing and Appearance (n= 14, e.g., wear a particular jersey number); Lucky Signs (n=7, e.g., discarding lucky charms); Pre-Game (n= 5, e.g., listening to music during warm-up); Game (n= 5, e.g., perform a sign of the cross); Team Rituals (n= 4, e.g., team cheer); Prayer (n= 4, e.g., team has a team prayer); and Superstition of the Coach (n= 3, e.g., coach takes a lucky charm to the game). Each ritual was measured using a five-point Likert scale

ranging from not at all effective (1) to very effective (5). The sum of the number of rituals used by the participant was defined as the total “number of rituals”. The averages of the sub-scales were determined by dividing the total of the categories by the number of ticked questions (rituals engaged in). This was done to find out which of the rituals were relevant to each participant. Buhrmann, Brown, and Zaugg (1982) reported a test-retest reliability coefficient of .95 on the original scale. The SRQ (Bleak & Frederick, 1998) was developed based upon the work of Buhrmann, and Zaugg (1981) however, the psychometric properties have not been established (Burke, et al., 2006).

Sport Attributional Styles: The Short Form of the Sport Attributional Style Scale (Hanrahan & Grove, 1990) was modified for this study. The modification was necessary to allow the scale to be administered in the field when time was short and to reword some items to make them more understandable to the participants. The original scale has inter-item reliability coefficient averages of .74 and .72 for both positive and negative events, respectively. Test-retest reliability over an eleven week period averages .58 across the causal dimensions. It consists of six positive and six negative events in football. All items permitted participants to use their own definitions of success and failure. For example, instead of stating “You win a match” one item said “You perform very well in a match”. Participants were asked to write down the single most likely cause of a positive and negative event in football that was presented to them. Then they were asked to rate their open-ended causal attributions along the dimensions of internality, stability and controllability. Ratings reflected the extent to which the participant believed the cause exhibited these dimensional properties on 7-point scales. The 12 items were presented in random

order with restriction that positive and negative versions of the same situation were never placed next to each other.

Procedure

The data collection took place in Ghana in compliance with the host University Ethics Committee and the Ghana Football Association. Directors of the sixteen premiership clubs in Ghana were formally contacted through letters and followed up with telephone calls. Permission was granted to solicit professional footballers to voluntarily participate in the study during a regular scheduled team meeting. The participants were given a brief explanation of the purpose of this study before being provided with the questionnaires. After explanations in both English and Asante Twi (participants' local dialect), all players were asked to read and sign an informed consent form. The questionnaires were administered by the first author because he can communicate in both languages and has in-depth understanding of the psychological constructs under investigation. This was to reduce the chance of any translation difficulties. No coaches were present during the administration of the questionnaires. The inventories were administered in the following order: one- page background questionnaire (age, playing position etc), SASS, and SRQ. Although data were collected from 120 professional footballers, nine were excluded from the results due to incomplete information.

Results

Descriptive statistics are presented in Table 1. Positional differences were present only in the total number of superstitious behaviors players engaged in. An examination of the categories of superstitious behaviors endorsed by professional footballers revealed that the top three categories were Clothing and Appearance, Prayer and Team rituals (see Table 1).

Pearson correlations were obtained among measures of attributional styles and superstitious behaviour (see Table 2). Significant negative correlations ($p < .05$) were found between number of rituals and scores for positive-externality (-0.27) and negative-externality (-0.17). A significant positive correlation was found between superstitious behaviour and positive-controllability (0.20). Players who are high on both positive and negative externality are less likely to engage in superstitious rituals. Overall, there was a significant relationship between attribution styles and superstitious behaviour.

Attributional Styles as Predictors of Superstitious Behaviours

A Multiple Regression analysis was performed to determine the extent to which the scores for Attributional styles predicted scores on the SRQ. For total superstition scale and attributional styles, the findings revealed a significant multiple correlation of 0.33, which was statistically significant ($R = .33$, $F(df 6, 106) = 2.21$, $p < .05$). Positive-externality, negative-externality and negative controllability were significant predictors of the practice of superstitious behaviour. These constructs accounted for 11.1% of the total variance in the practice of superstitious behaviour in this sample of professional footballers.

In order to determine whether the strength of this significant relationship varied as a function of a particular sub-scale or categories, separate multiple regression analyses were conducted for each of the top three categories (Clothing and appearance, Team ritual and Coach) as the dependent variable and Attributional styles constructs as Independent variables. The findings revealed that Attributional styles measures were significant predictors of Clothing and Appearance ($R = 0.41$, $F = 3.60$, $p < .05$). These constructs accounted for 16.9% of the variance in the practice of Clothing and Appearance as a ritual.

T-test was employed to examine if there were any differences among Goalkeeper's (n=12) and Attacker's (n=52) beliefs and usages of superstitious behaviours (See Table 3). Overall, no significant differences existed between Goalkeepers and Attackers in how they subscribed to superstitious behaviour practice.

Discussion

One purpose of this study was to examine the relationship between attributional styles measures and the usage of superstitious behaviour among professional footballers. Differences in superstitious behaviours were also examined by position. It was hypothesized that attackers are more likely to practice superstitious behaviours than goalkeepers. Overall, no significant differences existed between Goalkeepers and Attackers in how they subscribed to superstitious practices. This finding is contrary to claims by Gmelch (1971) that in baseball and hockey, individuals assigned to certain positions are likely to engage in superstitious behaviours than others. The reason why positions like hitting and pitching in baseball and goalkeeping in hockey are associated with ritualistic behaviors is that these positions are riskier. Perhaps the risk component in football does not vary by position. A second possibility relates to the nature and size of sample tested. The sample comprised of only male footballers in Ghana and a sample size of 12 goalkeepers and 52 attackers.

The findings of the second research question investigating the extent to which attributional styles predicted superstitious practice in elite footballers are discussed herein. The negative relationship that emerged between Internality (positive and negative) and superstitious behaviour implies that players who scored highly on both positive and negative Internality, are less likely to engage in superstitious rituals. In

other words, players who tended to believe that events occur due to their own internal capabilities were less likely to practice superstition in football. This finding is in contrast to research by Van Raalte et al. (1991) who found that participants who endorsed internal responses on a measure of LOC were more likely to develop superstitious behaviour. These conflicting findings may be explained by the nature of the competitive situation as reported by Van Raalte et al (1991) study, which was conducted with a laboratory-controlled golf putting task. It is possible that the artificial settings coupled with participants with less athletic experience may have potentially created different results than a realistic, uncontrolled setting.

The present study also revealed that a positive correlation exists between Controllability (Positive and Negative) and superstitious behaviour. This indicates that the more a player scores high on both positive and negative controllability the more likely it is for them to engage in superstitious practice. Perhaps, they use it to gain control. The current finding confirms Womack's (1992) assertion that superstition provides athletes with the means of feeling control in competitive situations. The inherent competitiveness of elite footballers and the societal pressure to succeed at the professional level can influence a player to resort to external means, (Bleak and Frederick, 1998) such as superstitious behaviour, to control the outcome of a football match. Again the ambiguity inherent in professional soccer may cause players to seek control and certainty through the use of superstition. Thus a player with a high need to succeed seeks to develop control over his performance, injury, and luck through uses of ritual to gain control over chance elements or events under other's control. Perhaps, they use it to gain control.

A significant finding from the SRQ was that elite footballers had a higher incidence of engaging in superstitious rituals associated with their clothing and

appearance. This finding is contrary to the view point of Ciborowski (1997) who found that collegiate baseplayers had a higher incidence of possessing a lucky object or charm. The discrepancy found between these two studies may be attributed to the difference in competitive level of participants. Thus the level of competitiveness can be an emerging factor that can differentiate particular groups of athletes from ascribing to a different sport ritual. Although clothing and appearance seemed to be the widely used ritual, it was prayer rituals that garnered the highest effectiveness ratings across board. The conclusion can be drawn that it is not necessarily effectiveness of a superstitious sports behaviour which determines its popularity among professional soccer players.

This is a widely held view that superstitious behaviours have been used to reduce anxiety, build confidence, and cope with uncertainty (Neil, 1980), and the findings of this study are no different. However, research has begun to show that some athletes engage in superstitious behaviour not for any of the above benefits but as means to conform to peer-pressure and to demonstrate commitment towards the team cause. Further research is needed in the area of cognitive dissonance, how an individual athlete's superstitious beliefs conflict with that of the team's superstitious beliefs.

Another finding from this study was the importance of team prayers. All the participants reported feelings of alertness, strong team bond, cohesion, and confidence just after team prayers before kick off. A possible explanation for this finding may be that players pray together before matches with a common foe (opponents). With victory in mind team players often forgo any difference and focus on winning, which in team settings will demand the maximum contribution from other team members.

At the very least, players of different religious faith wanted to adopt different means of prayers that were in line with their faith. This supports previous research which indicated that it is difficult to distinguish clearly between religious and superstitious beliefs and practices (Buhrmann and Zaugg, 1983; Jahoda, 1969). It can be concluded that superstitious beliefs and practices are partly a function of religion.

It is difficult to draw any conclusion as to how participants responded to their opponents' ritualistic behaviour. Individuals differ on how they approach stressful situations and events that have uncertain outcomes as in professional football.

Additionally, it was inferred from the survey that players attributed at least 30% of their success and failure to an element of luck. This corroborates the findings of Ciborowski (1997) that during almost every game, one or more of the players made comments about luck as a deciding factor. Although players gave credence to skills and techniques in the game as important factors, it will interest readers to know that especially in the course of defeats, players resorted to luck eluding them as a defence mechanism. Confronted with the pain of defeat stress and uncertainty about making the squad for the next game, players may suppress their normal judgement and logic as a means of gaining control over desired outcome (Gmelch, 1971, Womack, 1981).

As individuals from various cultures have different socialization experience (i.e., behaviour influenced by the support or pressures of the social context) it is suggested that superstition could be, in part, a function of culture. More research involving individuals from various cultural perspectives is warranted to provide a comprehensive understanding of superstitious behaviour in the sporting context. Further research is necessary in the area, and should consider comparing individual

sports and team sports, professional and amateurs, objective sports and subjective sports on the usage of superstition. There is also the need for future studies investigating superstition among athletes to include the playing experience, starters and reserves, and educational background of the players.

Some of the findings of the present study contradicted previous research results and conclusion and may be explained by this difference in the type of sport context under discussion. For instance, participants of this study comprised of professional footballers from Ghana, whereas previous research noted include college athletes from North America and Western Europe. An understanding of the differences that naturally occur between athletes of different cultural and sport contexts may be used to cultivate certain behaviours that would enhance training and performance.

There are a number of limitations that need to be kept in mind when assessing the results of the present study. The study employed a quantitative approach and understanding of superstitious and ritualistic behaviours would be strengthened by qualitative research. The second limitation relates to language and translation difficulties, as some of the constructs used in the questionnaire had no exact word or meaning in the participants local dialect or language. Another limitation with this study is the self-report protocol of measuring superstition. It should be noted that a test for the order effects could not be conducted because the questionnaires were not counterbalanced.

Overall, this study expands upon the existing literature concerning use of superstition in a number of ways. First, the study sampled professional footballers in Ghana. Second, this study examined, how attributional styles constructs predicted superstitious behaviour. Again the study investigated how positional differences can influence superstition usage in football. Lastly, the study made an attempt to test

some of the underlying assumptions about why footballers use rituals. Results of the study indicated that attributional styles were significant predictor of superstitious behaviour. In addition, no significant differences were found for positional differences in the usage of superstition. More so, support was shown for fear of injury, culture and religiosity playing important roles in determining the overall use of superstition in sport. However, these factors were also important in distinguishing use of specific rituals. Based on these findings it is suggested that not only the desire to win will motivate athletes to subscribe to superstitious behavior but also fear of injury, culture, religiosity and pressure from team officials.

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Table 1. Descriptive statistics for Superstitious Ritual Questionnaire (SRQ) Subscales

	N	Mean	Standard Deviation
Clothing & Appearance	115	18.94	9.93
Lucky signs	88	8.65	6.86
Pre-game rituals	111	12.04	5.86
Game rituals	110	12.67	5.11
Team rituals	114	14.53	4.39
Prayer	113	16.89	3.43
Coach	114	7.75	2.83

Note: N represents the number of players who subscribed to that particular ritual. For example, of the total 120 players sampled, 115 players used the Clothing and Appearance ritual.

Table 2. Correlation of attributional styles and superstitious ritual practice (N = 120)

	Total (Superstition Scale)	Positives- Internality	Positive- Stability	Positive- Controllability	Negative- Internability	Negative- Stability	Negative- Controllability
Total (Superstition Scale)		-0.27	-0.09	0.20	-0.17	-0.03	0.18
Positives- Internality			0.33	-0.20	0.351	0.36	-0.27
Positive-Stability				-0.37	0.50	0.38	-0.24
Positive- Controllability					-0.45	-0.29	0.62
Negative- Internability						0.24	-0.54
Negative- Stability							-0.28
Negative- Controllability							

Table 3. Differences among goalkeepers and attackers and superstitious behaviour statistics

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Total (Superstition Scale)	Equal variances assumed	0.453	0.503	-1.021	62	0.311	-9.5385	9.34646	-28.22177	9.14485
	Equal variances not assumed			-.932	15.04 9	0.366	-9.5385	10.23116	-31.33947	12.26255