

## Magic and Sorcery in East African Football

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### Abstract

*East African soccer is associated with deeply held beliefs in magic, superstition and rituals. In some cases, a team attributes match outcome to the superiority of the magician consulted before the game rather than to the known ingredients of performance such as technical, tactical, physical and psychological abilities. Team officials, fans and even players employ all manner of talismans, mediums, rituals and practices steeped in magic or witchcraft to triumph over their opponents. Some of the common practices include players donning lucky boots, jerseys, and shin guards, planting animal body parts on the pitch, wearing good luck symbols and applying stadium entry rituals, among others. This article endeavors to examine the practice and significance of magic and rituals in the East African Game by drawing on examples from different parts of Kenya, Tanzania, Uganda and Rwanda.*

**Keywords:** Attribution, Superstition, Juju, Sports Performance, Witchcraft, East African Football, Sports Science

### Introduction

East African soccer is associated with deeply held beliefs in magic, superstition and rituals (Brulliard 2010). In some cases, the match outcome is attributed to the superiority of the magician consulted before the game rather than to the known ingredients of performance such as technical, tactical, physical and psychological abilities. This firm belief in magic or Juju, as it is popularly referred to, has led to violence and deaths at key matches (Vesely, 2004). It is interesting that the sphere of sports science and that of magic run parallel in East African soccer to the disbelief of many scientists and elite African players (Schatzberg, 2006). For people schooled in the western scientific methods of knowledge pursuit and discovery, the idea of players relying on witchcraft to win matches is bizarre. However, there is a real dual belief system regarding the significance of scientific training principles driving sporting success and that of depending on a supernatural power to twist the outcome in a team's favor in East Africa as well Africa as a whole. Indeed, the dependence on witchcraft and the ensuing discussions about the proceedings of matches and the match outcomes generate interesting and fascinating story lines that have endeared the sport of soccer to many people on the African continent

(Brulliard, 2010; Schartzberg, 2006). Indeed, the determinants of human athletic performance have long been a challenging field of study in sport sciences, hence the open invitation for competing explanations for sporting success.

Performance excellence in soccer is an enormously complex multifactorial phenomenon, and is determined by numerous intrinsic (e.g., genetics, motor behavior, physiological and psychological profile) and extrinsic factors (e.g., training, nutrition, development opportunities and overall health conditions) as well as by the interaction between them (Kiss et al., 2004; Njororai, 2000; 2004; 2007a, b; 2012; 2013; 2016; 2017b; Tucker and Collins, 2012). Although it is impossible to set a unique formula to make anyone become a successful soccer player, it is widely accepted that any individual, who is highly committed and dedicated to training improves in performance. Thus, sports scientists continually focus on proximate explanations for great athletic performance—or, how an athlete interacts with his or her environment (e.g. diet, training) to attain some capacity for success. By understanding how the environment shapes athletes, one can manipulate environmental conditions to optimize athletic performance (Wilson et al., 2017). Despite this manipulation of environmental factors, there still lies the challenge of predicting how each athlete responds to the prevailing conditions. East African football provides rich examples of how various individuals subscribe to several different modes of causality at the same time. In the realm of soccer, the scientific method can be used to isolate the practices and procedures that bring consistent success. Once these factors are known, officials and players can apply them to improve performance (Njororai, 2000; 2004; 2007a, b; 2012; 2013; 2016; 2017b; Schatzberg, 2006).

On the other hand, athletes, at all levels, rely on superstitions to enhance their performance (Brulliard, 2010). Superstitions are defined as acting as though there is, or believing there is, a cause and effect connection between certain behaviors and positive outcomes where there is no rational direct association (Churchill, Taylor, and Parkes, 2014). Superstitions in sport have also been defined as “actions which are repetitive, formal, and sequential, distinct from technical performance, and which the athletes believe to be powerful in controlling luck or external factors” (Womack as cited in Bleak and Frederick, 1998, p. 2). Due to the repetitive aspect of superstitions, the term

“ritual” has been used to represent superstitious behaviors by some authors (Ofori, Biddle, and Lavallee, 2012).

Superstitions are also related to pre-performance routines, in that both are repetitive, formal, and sequential (Foster, Weigand, and Baines, 2006). However, there are differences between them. Pre-performance routines are learned techniques, usually developed by a professional or a sport psychologist, which athletes intentionally use to enhance performance (Bleak and Frederick, 1998). Pre-performance routines give the athlete a sense of control over the situation and are structured to give the athlete purpose by aiding in the execution of specific tasks or skills. Superstitions are not pertinent to a specific task or skill (Cohn, 1990). Therefore, superstitions and rituals may feel controlling to the athlete who also gives special, magical significance to superstitious rituals (Burke et al., 2006).

In their experiment with 20 male basketball players, Foster, Weigand, and Baines (2006) showed that free-throw performance influenced by superstitions was better than free-throw performance influenced by pre-performance routines in the short term. When the superstitious behavior was removed, participants experienced increased acute emotional disturbance and agitation and poorer performance. However, with the addition of a pre-performance routine, performance returned close to baseline or almost equal to performance with a superstition. This implies that for those who firmly believe in superstition, it has some psychological benefits especially at the emotional and confidence level.

According to Donti et al. (2007), distinguishing superstitious beliefs and behaviors from religious beliefs (e.g., ‘pray for success before each game’), habitual behaviors (e.g., ‘snacks-energizers before contests’), and pre-performance routines (e.g., ‘music during warm up’) can be difficult as the line of differentiation is often weak and poorly defined. For example, uttering a prayer consistently before a match may be an expression of religious beliefs. However, it may also have a superstitious background if the athlete feels that luck will fade if a prayer is not said. According to Donti et al. (2007), on the other hand, praying may not be representative of religious or superstitious beliefs but only an example of habitual behavior without any thought given to the “supernatural”.

### **Magic in the East African Context**

East Africa includes Kenya, Uganda, Tanzania, Rwanda and Burundi. Each of these countries have several different ethnic groupings with distinct cultural differences including varied forms of deeply held religious beliefs (Mbega, 2016). Across the

region, there is a large population of both Christians and Muslims, while a significant number are traditionalists too (Igwe, 2004). Sport is a microcosm of a society in which it is practiced. It is, therefore, imperative to place magic or sorcery in sport within the larger context of magic/witchcraft in East African societies. Indeed, East African witchcraft beliefs and practices are alive and aware of the basic rhythms of the world and engage in creative ways with novel post-colonial realities (Sanders, 2003). It is apparent that the introduction of football in East Africa by Christian missionaries and schoolteachers entailed inculcating moral superiority of western religion over traditional practices. The missionaries looked at traditional practices as pagan, backward and retrogressive. During these early times, missionaries used football matches for instructional purposes including praying to God for protection and blessing before a competitive match.

However, as Sanders (2003) argues, people are not simply overrun by global structural inevitabilities. They tend to resist, creatively accommodate and selectively appropriate new styles, symbols, and structures of meaning. According to Gaonkar (1999, p. 16), “The interaction between global and local cultural interstices becomes highly creative sites where people make themselves modern, as opposed to being made modern by alien and impersonal forces.” People actively modify new practices to suit their own lifestyles and traditions. Therefore, witchcraft is a prevalent belief and practice within the East African region parallel to the western and Asian religious practices. It permeates and controls the thinking, perception and lives of nearly all peoples, both educated and non-educated (Igwe, 2004). It is an integral part of East Africa’s traditional religious heritage.

Indeed, on the soccer scene, it is common to see players pray before the start of the match even today (Leseth, 1997; Pannenberg, 2010; Vesely, 2004). The appeal to the supernatural provides a calming assurance in terms of safety during the match and a blessed expectation that all will be well because God answers prayers. Alongside the religious beliefs, there is also widespread belief in witchcraft, sorcery and magic or what is collectively referred to as ‘juju’ or ‘muti’. Team officials, fans and players employ all manner of talismans, mediums, rituals and practices steeped in magic or witchcraft to triumph over their opponents. Some of the common practices include players donning lucky boots, jerseys, shin guards, planting animal body parts on the pitch, sprinkling snake blood, skipping over corpses, smearing themselves with concoctions before shaking hands with their opponents, among others. At the core of the practice of juju is a belief system whereby specialists

use plants, herbs, fetishes, animals, spirits and rituals to attain certain goals in a sporting competition. According to Pannenberg (2010), there are different forms of juju in football. Some examples of juju include a concoction containing for instance the head of a cat, a needle and a piece of paper with the names of the opponent team players buried on the pitch or near the entrance to the stadium. Another example is where spirits purportedly appear on the pitch to disrupt play as for example a goalkeeper seeing more than one ball or instead of seeing a ball, he sees a lion coming so he ducks instead of catching it.

Other manifestations of witchcraft include lightning striking and killing only members of one team and their supporters, while the other team is not affected. In December 2018, a Kenyatta University soccer player was killed by lightning while celebrating a goal in Busia, Western Kenya. Six other players were injured (Star, 2018). Similarly, Tanner (1998) reported a situation where lightning killed all eleven players of a visiting team in Eastern Democratic Republic of Congo, while leaving the hosts unscathed. In a similar, though less deadly, incident in South Africa over the same weekend, six players from a local team were hurt when lightning struck the playing field during a thunderstorm. In all cases, the lightning strikes were attributed to witchcraft. These episodes associated with witchcraft are prevalent in African soccer.

Juju is considered an African secret (Brulliard, 2010) as it is not widely discussed and teams do not openly admit to its usage (Pannenberg, 2010). To the practitioners, Juju is aimed at weakening the opponent team to give one's team more chances in winning the match. According to Vesely (2004), soccer teams, from local to national are always looking for an extra edge, a sure-fire way to win the next game. But if this has worked anywhere, it is certain that East African teams have lacked this "edge or sure-fire" way of winning at the African Cup of Nations (AFCON). However, poor performance at the AFCON does not negate the belief and efficacy of applying juju as a preparatory ritual for competitions. As a belief, Juju supposedly brings luck to one team and bad luck to the other. This belief that juju can help one team score goals and stop the other one from scoring is a whole industry. It is an industry where spirit-mediums claim they can simultaneously lock your goal while opening that of the opposing team (Niehaus, 2015 and Vesely, 2004). When one team finds out the type of juju of the other team, they can prepare themselves and neutralize the other team's juju. The team that wins is perceived to have a more powerful magician compared to that of the losing team. However, consultations with the magician is done in secret to avoid counter

interventions from the opposing team. That is why people are often reluctant to talk openly about it.

It is evident that some of the violence in East African football are also juju-related (Pannenberg, 2010). For example, a match between archrivals Gor Mahia and AFC Leopards of Kenya in 2010, led to seven deaths because of a stampede occasioned by overcrowding at one gate, as it was perceived to be the only "lucky" entry (Menya, 2010). These two clubs have a historical rivalry that brings the nation to a standstill (Njororai, 2017a). Although official investigations blamed the deaths to stadium (mis)management, inefficient security, inept crowd control, poor match timing, a ticketing debacle and heavy downpour, the underlying behavior was rooted in superstitious beliefs surrounding a local derby.

### **Juju Practices by Teams**

The following have been identified as indicators of a team that is deeply involved with Juju practices in East African soccer, and around the African continent: Players jump over the wall of the stadium before the match; team bus drives straight onto the field; Players refuse to change in the dressing room; Players enter the field wearing the wrong colour jerseys; Players refuse to shake the opponent's hand; Players urinate on the pitch (to counter juju); Players throw something into the opponent's goalpost; The goalkeeper hides something inside his goalpost; Players wear white handkerchiefs, necklaces and other 'talismans'; Burying animals or chicken parts in the goal area; Mysterious appearance of animals such as hares, foxes, and even baboons on the pitch during a match; Sudden bursts of lightning and in some cases affecting only one team and their supporters accompanied with a huge downpour with strong winds and Mysterious episodes of players of one team feeling dizzy, nauseous and fatigued; among others (Niehaus, 2015; Pannenberg, 2010). A match between Uganda and Rwanda in 2002 was temporarily brought to a halt when Ugandan players suspected the Rwandese goalkeeper of having a "muti" at the goal post. According to Carlin (2003)

As the players stepped on to the pitch the Ugandans cast leery glances at the Rwandan goalkeeper, Muhammad Mossi. Mossi, a flamboyant and fully paid-up member of the gratuitously acrobatic school of goalkeeping, did nothing to allay their misgivings. Holding up his gloved hands to them, he said: 'I've got electric juju today. It's so strong you can't see it.' Within 15 minutes of the start, the game had descended into a bloodbath. Mossi was to blame. A couple of great early saves had provided both the crowd (60,000 crammed

into a stadium with an official capacity of 45,000) and the Ugandan players with conclusive evidence that the Rwandan keeper was invoking the aid of supernatural agents. One Ugandan player charged at Mossi and tried to tear off his gloves. Another started digging behind the Rwandan goal line with his hands, frenetically searching for the offending juju. That was it. Mayhem. The mother and father of all punch-ups. Blood-spattered shirts all round. One Ugandan player got off the bench and hit a Rwandan, Jimmy Gatete, over the head with his boot. Blood poured down Gatete's shirt from a gash on his brow. Then the police entered the fray. Not to stop the players from fighting, but to pile into the plucky Rwandans, who forgot where they were, ignored the baying crowd, and were giving as good as they got. The referee ordered the players off the pitch. (<https://www.theguardian.com/football/2003/jul/13/sport.comment3>).

Similar witchcraft occurrences have been cited in Rwanda (Dowd, 2016; Payne 2016), Uganda (Musungu, 2017), Tanzania (Chuma 2018), and Kenya (Lacey 2002; Menya, 2010). This prevalence of witchcraft in East African football is deeply grounded in the traditional practices of relying on a medicine man and alternative solutions parallel to western approaches of healing and treatment of sicknesses. According to Ptacek (2016) a few theories for how superstitions arise in the realm of sport are important in understanding why superstitions are so prevalent among athletes. The author traces the presence of superstitions on B.F. Skinner's reinforcement model and accidental operant conditioning. In this situation, an irrelevant action is reinforced; therefore, a causal relationship is formed between the irrelevant action and the reinforcement, thus creating a superstition (Skinner, 1948). In his experiment with pigeons, Skinner gave them food at irregular intervals. Whatever the birds were doing at the time they were reinforced with the food, resulting in some birds associating food with walking in their cages, turning their head, among other actions. This reinforcement model translates to sport in that an irrelevant action, such as wearing a certain pair of socks, could be reinforced by winning the game. Therefore, an athlete is more likely to wear those socks for the next game or acquire other superstitious behaviors that he/she thinks were related to the successful performance. Players believe that using some potions or muti gives them confidence and it also minimizes any fears, therefore

they apply themselves to fully striving to win (Niehaus 2015).

Another possible explanation for how superstitions are thought to arise is through the uncertainty hypothesis. According to the uncertainty hypothesis (Burger and Lynn, 2005), superstitious people believe the outcome of certain events is determined partly by controllable forces and partly by uncontrollable forces. Controllable forces include those under the individual's own power (e.g., executing the techniques, preparing for a match), as well as those under the control of other people or sources of power (e.g., opponent's skills, quality of an opponent). Uncontrollable forces are those identified by attribution researchers (e.g., Weiner, 1985) as chance or luck. The uncertainty hypothesis maintains that the more people attribute outcomes to chance or luck, the more likely it is that they will turn to superstition. In essence, the superstitious individual is trying to transform some of the uncontrollable forces into controllable forces, and thereby increase the likelihood of obtaining the desired outcome.

In soccer, players of one team have no control over the ability and expertise of their opponents. They, therefore, resort to magical powers of the sorcerer to put some measure of control so that the opponents may not play at their full potential on the day. On the other hand, resorting to sorcerers to control the level of performance of the opponents also elevates the confidence and conviction of the recipients to go out and perform at their very best based on the sorcerer's assurance. According to Schippers and Van Lange (2006), superstitious rituals differ from a normal routine in that the person gives the action a special, magical significance. However, the distinction between superstition and preparing for the game is not always clear. For African players, visiting a sorcerer and undergoing the special rituals is part and parcel of preparing for a match. Hence Vyse (1997) argued that "It is often difficult to draw the line between superstition and useful preparation" (p. 90). For some superstitious rituals, it is easy to see that they have no function in a useful preparation, but most superstitions are difficult to distinguish from preparing for performance. One inescapable fact is that a function of rituals is preparing mentally for each performance. In this sense, rituals seem to serve a rational and useful purpose especially for players with an external locus of control, who tend to exhibit greater levels of ritual commitment than players with an internal locus of control (Schippers and Van Lange, 2006).

Lastly, superstitions may work through the psychological states, and in particular confidence (or self-efficacy). "Self-confidence is widely acclaimed by theorists, researchers, and practitioners as the most critical psychological characteristic influencing sport

performance” (Vealey, Hayashi, Garner-Holman, and Giacobbi, 1998, p. 54). A meta-analysis examining self-efficacy and sport performance showed that the correlation was .38, which is moderate and positive (Moritz, Feltz, Fahrback, and Mack, 2000). Moritz and colleagues also explained that this result is exceptionally generalizable, due to the wide range of studies in their review.

### Conclusion

Superstition is acting as though there is, or believing there is, a cause and effect connection between certain

### References

Bleak, J. L. & Frederick, C. M. (1998). Superstitious behavior in sport: Levels of

effectiveness and determinants of use in three collegiate sports. *Journal of Sport*

*Behavior*, 21(1): 1-15.

Brulliard, N. (2010). Magical thinking: A secret edge for South Africa at the World

Cup? Soccer fans think ‘The Boys’ could benefit from witchcraft; team says No.

*Wall Street Journal* 10: A1.

Burger, J. M., & Lynn, A. L. (2005). Superstitious behaviors among American and

Japanese professional baseball players. *Basic and Applied Social Psychology*,

27 (1): 71-76.

Burke, K. L., Czech, D. R., Knight, J. L., Scott, L. A., Joyner, B., Benton, S. G., et al.

(2006). An exploratory investigation of superstition, personal control, optimism

and pessimism in NCAA division I intercollegiate student-athletes. *Athletic Insight*, 8.

Carlin John (2003). Rwanda’s Magic Moment. Retrieved at

<https://www.theguardian.com/football/2003/jul/13/sport.comment3> on November 13, 2019.

Chuma Festus. (2018). Witchcraft Still Part Of The Game In Africa. Retrieved at

[https://www.ducorsports.com/frunt/post\\_details/witchcraft-still-part-of-the-game-in-africa-12569.html](https://www.ducorsports.com/frunt/post_details/witchcraft-still-part-of-the-game-in-africa-12569.html) on November 13, 2019.

behaviors and positive outcomes where there is no rational direct association. Superstitions in football has been reported in Tanzania, Uganda, Rwanda, and Kenya, among others. There is widespread use of sorcery to influence performance across the East African region. It is interesting that despite advances in sports science and the investment in professional training for coaches and other supportive technical personnel, a juju still has influence in the locker room and on the field of performance to the dismay of many educated coaches and soccer leaders and players.

Cohn, P. J. (1990). Preperformance routines in sport: Theoretical support and practical

applications. *The Sport Psychologist*, 4 (3): 301-312.

Churchill, A., Taylor, J., & Parkes, R. (2014). The creation of a superstitious belief

regarding putters in a laboratory-based golfing task. *International Journal of Sport*

*and Exercise Psychology*, 13(4): 335-343.

Donti, O., Katsikas, Ch., Stavrou, N.A., & Psychountaki, M. (2007). Superstitious Behavior

Inventory in Sport: A Preliminary Study. Retrieved at

[https://www.researchgate.net/publication/268390302\\_SUPERSTITIOUS\\_BEHAVIOR\\_INVENTORY\\_IN\\_SPORT\\_A\\_PRELIMINARY\\_STUDY](https://www.researchgate.net/publication/268390302_SUPERSTITIOUS_BEHAVIOR_INVENTORY_IN_SPORT_A_PRELIMINARY_STUDY) and accessed on April 20, 2019.

Dowd Alex. (2016). Witchcraft banned from Rwandan soccer matches after bizarre incident.

Retrieved at

<https://www.foxsports.com/soccer/story/witchcraft-banned-from-rwandan-soccer-matches-amid-bizarre-incident-122816> on November 13, 2019

Foster, D. J., Weigand, D. A., & Baines, D. (2006). The effect of removing superstitious behavior

and introducing a pre-performance routine on basketball free-throw performance.

*Journal of Applied Sport Psychology*, 18 (2): 167-171.

Gaonkar, D. (1999). On alternative modernities. *Public Culture* 11(1): 1-18.

Guardian (2016). Retrieved at

<https://www.theguardian.com/football/2016/>

- [oct/24/mortada-mansour-blames-sorcery-zamalek-african-champions-league-defeat](#)
- Igwe, L. (2004). A skeptical look at African witchcraft and religion. *Skeptic*, 11 (1): 72- 74.
- Kiss MAPDM, Böhme, M.T.S., Mansoldo, A.C., Degaki, E., Regazzini, M. (2004). Performance and sports talent. *Revista Paulista de Educacao Fisica*, 19(2): 89-100.
- Lacey, Marc. (2002). Kanagemi Journal; For Spellbinding Soccer, the Juju Man's on the Ball. Kangemi Journal. Retrieved at <https://www.nytimes.com/2002/08/08/world/kangemi-journal-for-spellbinding-soccer-the-juju-man-s-on-the-ball.html> on November 13, 2019.
- Leseth, A. (1997). The use of juju in football: Sport and witchcraft in Tanzania. In Armstrong, G. & R. Giulianotti (Eds.), *Entering the field: Perspectives on world football*. (pp. 159 –174). Oxford: Berg.
- Mbega, D. (2016). Sorcery, rituals are part of the game in Africa. Maendeleo Vijijini online. Retrieved at <http://maendeleovijijini.blogspot.com/2016/12/sorcery-rituals-are-part-of-game-in.html> on March 9, 2019.
- Menya, W. (October, 2010). Seven dead in Kenya football stampede. Retrieved at <https://www.nation.co.ke/sports/football/Seven-dead-in-Kenya-football-stampede/1102-1039036-tuttqjz/index.html>. Visited on March 29, 2019.
- Moritz, S. E., Feltz, D. L., Fahrback, K. R., & Mack, D. E. (2000). The relation of self-efficacy measures to sport performance: A meta-analytic review. *Research Quarterly for Exercise and Sport*, 71 (3): 280-294.
- Musungu, Nahashon. (2017). Witchcraft claims stalk Uganda football, again. Retrieved at <https://nairobinews.nation.co.ke/sports/witchcraft-claims-stalk-uganda-football> on November 13, 2019.
- Niehaus, I. (2015). Moralizing magic? A brief history of football potions in a South African homeland area, 1958 – 2010. *Journal of Southern African Studies*, 41 (5): 1053 – 1066.
- Njororai, W. W. S. (2000). An analysis of technical and tactical performance of national soccer teams of Kenya, Germany and Argentina. Unpublished Ph.D. Thesis, Kenyatta University, Nairobi, Kenya.
- Njororai, W. W. S. (2004). Analysis of the goals scored at the 17th World Cup soccer tournament in South Korea- Japan 2002. *AJPHERD*, 10 (4): 326-332.
- Njororai W. W. S. (2007a). More than physical: Technical ability and personality traits also are factors in performance. *Soccer Journal*. September/October, 14- 18.
- Njororai W. W. S. (2007b). Scoring goals: What the coach should know about the timing. *Soccer Journal*. November/December, 34- 36.
- Njororai W. W. S. (2012). Physical demands of soccer: lessons from team USA and Ghana matches in the 2010 FIFA WORLD CUP. *Journal of Physical Education and Sport (JPES)*, 12(4): 407 – 412.
- Njororai, W. W. S. (2013). Analysis of goals scored in the 2010 World Cup soccer tournament held in South Africa. *Journal of Physical Education and Sport (JPES)*, 13(1): 6 – 13.
- Njororai, W. W. S. (2016). Kenya at 50: Contextualization of post-independence sporting success. In Koster, M. M., Kithinji, M. M., & J.P. Rotich (Eds.), *Kenya after 50: Reconfiguring Education, Gender, and Policy* (125 – 146). London: Palgrave Macmillan.
- Njororai, W. W. S. (2017a). AFC Leopards and Gor Mahia: Footballing rivalry and shared political underdog status in Kenya. *Soccer & Society*, 19 (5-6): 811-828. DOI: 10.1080/14660970.2017.1399619
- Njororai W. W. S. (2017b). Organizational factors influencing football development in

- East African countries. *Soccer & Society*, 20 (1): 168—188.  
DOI: 10.1080/14660970.2017.1302931
- Ofori, P. K., Biddle, S., & D. Lavallee. (2012). The role of superstition among professional Footballers in Ghana. *Athletic Insight*, 4(2): 115-125. Retrieved from <https://ezproxy.utt Tyler.edu/login?url=https://search-proquest-com.ezproxy.utt Tyler.edu/docview/1698634908?accountid=7123>
- Pannenberg, A. (2010, December). *Football in Africa: Observations about political, financial, cultural and religious influences*. Amsterdam: NCDO Publications Series sport and Development.
- Payne, M. (2016). Rwanda bars witchcraft from soccer after player interrupts game to dig up bad juju. *The Washington Post* online. Retrieved at [https://www.washingtonpost.com/news/early-lead/wp/2016/12/29/rwanda-bars-witchcraft-from-soccer-after-player-interrupts-game-to-dig-up-bad-juju/?noredirect=on&utm\\_term=.41b2f7663ba1](https://www.washingtonpost.com/news/early-lead/wp/2016/12/29/rwanda-bars-witchcraft-from-soccer-after-player-interrupts-game-to-dig-up-bad-juju/?noredirect=on&utm_term=.41b2f7663ba1) on March 9, 2019.
- Ptacek, T. J. (2016). The relationship between superstition and confidence in sport. Master of Science Thesis, University of North Dakota. Available from ProQuest LLC. (Document ID 10125594).
- Sanders, T. (2003). Reconsidering witchcraft: Postcolonial Africa and analytic (un)certainities. *American Anthropologist*, 105 (2): 338 – 352.
- Schatzberg, M.G. (2006). Soccer, science, and sorcery: Causation and African football. *Africa Spectrum*, 41 (3): 351—369.
- Schippers, M. C., & P. A. Van Lange. (2006). The psychological benefits of superstitious rituals in top sport: A study among top sportspersons. *Journal of Applied Social Psychology*, 36 (10): 2532-2553.
- Skinner, B. F. (1948). Superstition in the pigeon. *Journal of Experimental Psychology*, 38 (2): 168-172.
- Star (2018). Retrieved at [https://www.the-star.co.ke/news/2018/12/12/one-killed-six-injured-as-lightning-strikes-at-busia-football-match\\_c1864348](https://www.the-star.co.ke/news/2018/12/12/one-killed-six-injured-as-lightning-strikes-at-busia-football-match_c1864348) on March, 2019.
- Tanner, M. (1998). Lightning kills an entire football team. *Independent Online*. Retrieved at <https://www.independent.co.uk/news/lightning-kills-an-entire-football-team-1181336.html> on March 9, 2019.
- Tucker R, & M. Collins. (2012). What makes champions? A review of the relative contribution of genes and training to sporting success. *British Journal of Sports Medicine*, 46 (8):555-561.
- Vealey, R. S., Hayashi, S. W., Garner-Holman, M., & P. Giacobbi. (1998). Sources of sport confidence: Conceptualization and instrument development. *Journal of Sport and Exercise Psychology*, 20 (1): 54 – 80.
- Vesely, M. (December 2004). Giving witchcraft the boot. *African Business*, 304: pp. 40 – 41.
- Vyse, S. A. (1997). *Believing in magic: The psychology of superstition*. New York: Oxford University Press.
- Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, 92 (4): 548-573.
- Wilson, R. S., David, G. K., Murphy, S. C., Angilletta, M. J., Jr., Niehaus, A. C., Hunter, A. H., & M. D. Smith. (2017). Skill not athleticism predicts individual variation in match performance of soccer players. *Proc Biol Sci.*, 284 (Dec. 6): 1868. DOI: 10.1098/rspb.2017.0953.