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Integrating pre-game rituals and pre-performance routines in a culture-specific context: Implications for sport psychology consultancy

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Common unorthodox pre-game rituals (PGR) are prevalent in sports, especially soccer, in Ghana and other Sub-Saharan states, yet research literature on how to draw valuable insights from these superstitious rituals to optimize sport performance are sparse. This conceptualized article highlights the conceptual differences between PGR and pre-performance routines based on scientific descriptions, empirical studies, and particular field observations. We then present the determinants and theoretical underpinnings of these behaviours. The manifestations of PGR in different forms during preparatory phases prior to competitive fixtures are also captured. The article concludes by throwing light on how sport psychology consultancy could tap into some of these unique ritualistic cultural practices by incorporating them as part of formalized pre-performance routines. Additionally, suggestions are made regarding possible future research using an intervention approach to empirically test the functions and efficacy of these localized practices.

Keywords: superstition; rituals; routines; “Jama”; efficacy; Ghana

Introduction

Over the last two decades, there has been a considerable upsurge of awareness regarding cultural diversity in sport and a further call for culturally underpinned sport psychology research and practice (Hanrahan, 2010, 2011; Ryba, Stambulova, Si, & Schinke, 2013; Schinke & Hanrahan, 2009; Schinke & Moore, 2011; Stambulova & Ryba, 2014). The foundation of this emerging area of cultural sport psychology (CSP) is the notion of cultural praxis. Cultural praxis, introduced in sport psychology by Ryba and Wright (2005, 2010), is “a critical discourse” and “an attempt to broaden the epistemological spectrum of theory and practice in the field” (2010, p. 3). Ryba et al. (2013) noted that this approach challenges culture-blind theories, research, and practice, and moves the sport psychology field from decontextualized knowledge to new perspectives about athletes as constituted by various discourses and identities.

With advancements in sport sciences and technology across professional boundaries through training and education, pre-game rituals (PGR) seem to be one specific area that remains untapped regarding their influence on sports performance. Plante (2007) acknowledged that most professional and scientific psychologists during the past century have avoided the connection or links between these areas of inquiry. PGR behaviours are a well-known and commonly accepted phenomenon worldwide in sport. The use of these behaviours is often thought to be related to a compulsive tendency to incorporate unique and individualistic actions which are thought to either

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enhance athletic performance and/or ward off some negative affect (coping; Catsoulis, 2011; Foster, Weigand, & Baines, 2006). This common phenomenon cuts across all level of athletes and is a broadly accepted practice that pervades many sports and cultures (Bentulan, 2003; Ofori, Biddle, & Lavalley, 2012; Todd & Brown, 2003).

From professional sport organizations to sport clubs, the use of superstitious behaviours in sport is evident from several television and newspaper reports (Bleak & Frederick, 1998). For example, in soccer, while some players want to enter the field first, others want to enter last, whereas others want to touch the grass when entering the pitch and do the sign of the cross. Some players want to wear the same jersey, the same shorts, the same socks or even the same underwear for a long series of competitions. It is not difficult to list more examples of what

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55 **AQ2** may be termed superstitious rituals (Schippers & Van Lange, 2006). The repetitive nature of
 ▲ superstitious events allows for the term “ritual” to be used to describe the superstitious behaviours (Bleak & Frederick, 1998). Rudski (2001) asserted that superstitious beliefs created in experimental procedures appear to be quite different from commonly held superstitions. The reason being that people with more traditional-type superstitions, like having lucky charms or lucky numbers, are likely to act or think superstitiously than those who did not.

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Success in social life as well as sports does not only hinge on outstanding individual abilities and team work alone, but also on variables such as chance, good fortune, and supernatural beliefs in most Sub-Saharan nations like Ghana. The latter seems to permeate across the human population regardless of one’s religion, educational status, and position in society. From a Sub-Saharan African perspective, the world comprises invisible forces, spirits, demons, and the souls of the departed. Comparative to a typical Western person, the African counterpart feels living forces all around, dwelling in rivers, fountains, trees, rocks, and everywhere. Rituals are purported to play the role that science plays in modern society in any traditional African culture. According to Leistner (2014), many ordinary Africans feel helpless and stand in awe of the invisible, that is, occultic forces surrounding them. Specialists are believed to be capable of interpreting and manipulating these forces on one’s behalf concerning any life event.

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The belief in the role of rituals for optimal task performance and general transformation has led sport officials, athletes, and other analogous personnel to spend considerable time, effort, and financial resources on these practices. The aim is to maximize gains over opponents. Sadly, both athletes and officialdom end up going through some health compromising behaviours at the expense of their general well-being. Some of these behaviours include visiting cemeteries at night, climbing very high stadia walls, and drinking or bathing perceived holy water or concoctions made from both animals and plants remains. Other practices that are also believed to enhance motivation, energy, and harmony of athletes are praying, chanting warlike songs, incantations, meditation, using psyching verses, and singing praises before and during competitive sporting events (Ikulayo & Semidara, 2011).

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Indeed, if these are the two contrasting roles of PGRs, what then should local practitioners (i.e. sport coaches, and psychologists) do to maximize the potential benefits while avoiding the risky practices that compromise athletes’ well-being? The former line of reasoning, to the best of our knowledge, is conspicuously missing from current research practice and sport psychology consultancy. We attempt, in this paper, to answer this question by discussing the concepts, determinants of PGRs, and understanding of PPRs from different models and/ or theories across

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 ▲ various domains in psychology citing examples of common PGR practices in Ghana and neighbouring countries. How to build the bridges between these localized PGR practices and scientifically proven PPRs to optimize sport performance is also featured. A culturally diversified perspective is opened for further empirical investigation to aid future theoretical and applied work.

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The concept of PGRs

PGR vary from all manner of spiritual baths to singing of certain songs and saying or chanting specific cue words or phrases before competitive sporting events. Athletes wear lucky charms as talismans or amulets on specific body parts, eat specially prepared food, wear special clothing or compulsively do some specific sequentially defined actions or pre-game activities.

According to Womack (1992), a PGR can be defined as “unusual, repetitive, rigid behavior that is perceived to have a positive effect by the actor, whereas in reality there is no causal link between the behavior and the outcome of an event” (p. 192). This repetitive act is purported to be formal, sequential, and very distinct from a technical preparation, and that athletes believe about its powerful nature in controlling luck or other external factors. According to Bleak and Frederick (1998), it is very possible that a PGR acts as psychological placebo, and indirectly affects individual performance outcomes by influencing the athlete’s perceived self-control. This ritualistic tendency emerges as a result of an uncertainty to a circumstance that is inherently random and uncontrollable (Vyse, 1997).

Determinants of PGRs

The emergence of PGRs is hinged on some cognitive-behavioural explanations put forward by some researchers. There is enough research evidence for the justification of PGRs across a range of perspectives. Researchers have acknowledged perspectives as varied as conditioning through positive reinforcement (Skinner, 1948, 1953), illusion of control (Langer, 1975, 1977; Rudski, 2004), Just World Hypothesis (Brevers, Dan, Noel, & Nils, 2011; Lerner, 1965; Schippers & Van Lange, 2006), uncertainty and importance of event (Brevers et al., 2011; Schippers & Van Lange, 2006; Van Raalte, Brewer, Nemeroff, & Linder, 1991; Vyse, 1997), standard of competition (Brevers et al., 2011; Schippers & Van Lange, 2006; Womack, 1979), and locus of control (Baron, Branscombe, & Byrne, 2009; Bleak & Frederick, 1998; Rotter, 1966; Todd & Brown, 2003; Van Raalte et al., 1991).

Aside these aforementioned variables, we believe that psychological pressure could trigger the enactment of PGRs. We define psychological pressure as the onset of any situational incentives for optimal, maximal, or superior performance. Different forms of PP may include a single or combination of reward or punishment contingency. Others include the presence of an evaluative audience, comparative cofactors (competition), task complexity, efficacy expectations, the extent to which performance reflects on important features of self (“ego relevance”), and the likelihood that one will not have a second chance (Baumeister & Showers, 1986). According to these authors, when these antecedents do occur together, their effects are often additive, often leading to the metaphorical expression “Choking”. Choking often results in suboptimal performance due to pressure. Performers may transit from PP experiences to a state of psychological tension when there is a perception of less control over upcoming sporting events. Hence, athletes may engage in PGRs in an attempt to prepare mentally and behaviourally to combat tension that may account for performance decline. For example, basketball players using purposeful free-throw preparation routines (e.g. three dribbles, motor imagery) obtained a similar, or lower performance than basketball players who exhibited superstitious rituals (e.g. touching the hair) before the throw, but a higher performance than the control group (direct shot) in a study conducted by Foster et al. (2006). Presumably, these PGRs may serve as a mental control strategy in the midst of increased adversities or challenges often associated with competition. Their impact could be likened to a psychological placebo (Brevers et al., 2011; Neil, 1980). The illustrations above clearly show that cognitive-behavioural influences could trigger the onset of PGRs.

Prevalence of PGR within African socio-cultural context

There is a persistent belief in Ghana and other Sub-Saharan states about witchcraft, sorcery magic, and spirits in all human endeavours including sports. PGR are often called juju in West Africa and muti in Southern Africa. Other natives prefer gris-gris, wak, voodoo, fetishism, black or white magic, Satan's work or African electronics (Pannenberg, 2012). These practices are popularly known in Ghana as "Ways and Means". Juju is a form of traditional belief more associated with herbalists or native doctors who strongly believe in herbs. The system of juju is difficult to explain, but is believed to be an amalgamation of traditional beliefs in ancestors, gods, and spirits (Pannenberg, 2012).

The practitioners of juju have different names as well, sometimes depending on the region from which they hail, religious affiliation, and on the type of juju they perform. From the northern parts of Ghana, these spiritual practitioners that appear to align themselves to Islamic faith are referred to as "Mallam" meaning Islamic native priest although the actual Islamic meaning is a scholar or teacher whereas those whose practices are derived from traditional beliefs are called "Kɔmfɔ or Kɔmfɔ" refers to an indigenous fetish priest or priestess, mostly from southern Ghana and are predominantly Akans (an ethnic group). Some nationals prefer witchdoctor while others would rather speak of a féticheur, nganga, marabout or spiritual adviser in Cameroon, Nigeria, Benin, etc. The indigenous people believe in their own gods and goddesses, including the "God of Iron", "God of Thunder and Lightning", "Goddess of Water, sea or rivers", "Goddess of Witches", and "Goddess of Wizards". These gods are believed to have supernatural powers, and so those who believe in them have a strong conviction in their potency (Ikulayo & Semidara, 2011). According to Pannenberg (2012), these spiritual practices occur all over the continent with striking similarities. Individuals historically rub magical powder, spirited oil, and consecrated cream on their bodies. Believers today drink or eat concoction of ground herbs, and wear talismans, amulets, including rings at specific parts of their bodies. These acts are performed to give individual athletes or teams upper hand over others (Ikulayo, 1989, 2003; Pannenberg, 2012).

Spirits are often invoked to assist individual athletes and teams for performance enhancement or to ward off some negative effect as part of ritualistic process through incantation. Invoking of these spirits is believed to negatively impact opponents by causing them to make mistakes on the field of play. These spiritual powers work on the senses of opponents, distort vision and cause hallucinations, fear, general stupor, and impair one's sense of correct judgment. Athletes believing in the effects of juju then take advantage of the situation to the fullest and seek to outplay their opponents (Ikulayo, 1989, 2003, 2007).

Due to the undocumented literature on PGRs in other sports, most examples cited in this conceptualized article are from soccer. Vesely (2004) writes that the issue is bedeviling many soccer clubs across Tanzania, Kenya, Uganda, and Rwanda. Aside from soccer clubs, some national teams fully engage the services of native doctors and spiritually prepare contingents before national assignments. For example, it is said that some Ministers of Sport support the use of the services of spiritual advisers (Pannenberg, 2012). These ritualistic behaviours have reached epidemic proportions and many national soccer bodies are clamping down on their usage (Vesely, 2004). The Confederation of African Football (CAF), the soccer governing body in Africa even threatened to arrest witchdoctors at the 2002 African Cup of Nations, fearing the practice would enhance Africa's Third World image (BBC report, 2002).

Pannenberg (2012) indicates that team officials are often categorized into those who believe and actively encourage juju, those who do not believe but accommodate the practice anyway, and those who do not believe and actively discourage it. Although most of these officials will never admit that they believe in juju and hire spiritualists, several high profile officers (e.g. club

AQ8 presidents and FA officials), accept these rituals. Most club presidents commit financial resources
 ▲ to the practice of juju. For example, it is reported by one management official that his club had
 invested a sum of 90,000 Ghana cedis (€45,000) on PGRs during a league season (Sportsingha-
 na.com as cited by Pannenberg).

185 Anecdotal evidence show that the onset of these ritualistic tendencies means that players are
 often hidden from public eyes few days before matches. Some team officials and performers are
 secretly accommodated, in hotels, club houses, or private sport complexes with very tight secur-
 ity. The transition to match venues is often complicated by long travels by bus, lasting many
 hours. Religious beliefs regarding certain regions make travelling even more arduous. For
 190 example, it is said that teams that travel to a region that shares a border with Togo have the
 fear that if they cross a certain river, they will lose. No one wants to sleep in any hotel in the
 town for fear of losing; hence most teams choose to sleep in the regional capital and travel for
 a longer period on a match day. Some routes to match venues are abandoned just for the fear
 of being manipulated, struck with ill-luck or have their juju neutralized. Teams are left with no
 other choice than to use the most obscured means of getting to the stadium. Rivers are sometimes
 195 crossed, libations are poured with some local drinks, and sheep or other animals are killed to
 pacify the gods of the land enroute to these match centres (Boateng, 2009).

The usage of stadium facilities poses another challenge for competing teams (host and visiting
 teams). The host or home teams are believed to have a spiritual advantage over visiting or away
 teams because they are the custodians of the facilities. Home teams usually protect the entire arena
 with spiritual grenades by burying concoctions and other spiritual objects inside the stadium pre-
 200 mises, preferably in the dressing rooms, and on the soccer pitches. Therefore, visiting teams are
 disadvantaged no matter how talented they may be. The perceived effects of such concoctions on
 the players of opposing teams are fatigue, dizziness, confusion, heaviness, weakness, slowness,
 and so on.

The burying of concoctions leads club officials to take at least two measures. First, stadia are
 205 guarded to prevent visiting teams from either burying something or removing the home teams'
 juju. A Cameroonian club president was reported to have hired supporters to light torches at
 night to chase away visitors (Pannenberg, 2008). Away teams are sometimes denied access to
 the stadium for training purposes even at the national level. For example, Ghana as a host is
 alleged to have denied national teams of Namibia and Nigeria from practicing at the National
 210 Stadium during the 2008 African Cup of Nations. Second, visiting teams generally receive
 orders from their spiritual advisers to avoid coming into contact with potential concoctions. If
 alleged concoctions are buried near the entrance, on paths leading to pitches, or in dressing
 rooms, players are advised to take alternative routes. As a result, team buses drive straight
 through the main gate, only to stop right next to the pitch or players are occasionally ordered
 215 to jump fences or stadium walls. Players could be seen walking backwards to the field of play,
 or supporters carrying players on their shoulders. The acts of jumping the fence and taking
 alternative routes are against the rules, at least in Ghana and Cameroon, and most likely elsewhere
 (Pannenberg, 2008; The Guardian blog, 2008).

Beyond the occurrences described above, matches are often characterized by other ritualistic
 220 behaviours. Goalkeepers regularly place suspicious objects in their goalposts while field players
 are openly seen urinating on pitches to counter juju and throwing salt (or rocks or coins) in oppos-
 ing teams' goalpost. Players typically refuse to shake each other's hands during the pre-match
 line-up. These manifestations of juju aside, other happenings do occur during pre-match meetings
 especially in Ghana. Pre-match formalities like checking player licences and squad jerseys, and
 handing out keys to dressing rooms are done. Some teams stay away from pre-match meetings
 225 because of the fear of being manipulated by juju. A first example of juju during match time is
 teams entering the pitch wearing the same jersey colour. When jerseys clash, visiting teams

have to go and change (Ghana Football Association Regulations, 2006). Jersey clashes usually lead to much delay as a result of one team's failure to attend the pre-match meeting (Ghana News Agency report, 2005).

230 These PGRs are done with the supreme interest of these clubs or teams to possibly be victorious. However, is this always the case? Are sport outcomes determined by supernatural forces or spirits? Why then bother hiring professional coaches and have players or athletes practice every day? The answer is, if PGRs and practice sessions are seen as complementary elements of matches or other sporting events' preparation, then some of these localized PGRs could be regarded as having a strong psychological impact toward optimal or peak performance while ignoring practices that may compromise the general well-being of these same athletes or players we profess to assist. These practices create so much psychological tension on these athletes which invariably impedes their performance. Affected club or team officials develop acrimonious relationships with colleagues from opposing teams as a result of the rancour, pain, and agony due to their unpleasant experiences. The reactions from affected club officials are often to seek revenge when they play host in subsequent matches. These experiences then become cyclical. The critical question is what should coaches and/or sport psychologists do? The next discourse focuses briefly on the historical roots of PGRs and how well these practitioners could integrate some of these practices into PPRs in an attempt to enhance athletic performance.

245 **Historical roots of PGRs and new perspectives**

PGRs open new directions in the context of traditional healing ceremonies and modern (neuro-cognitive) perspectives on shamanism (e.g. Winkelman, 2010). PGRs are partially rooted in traditional healing ceremonies and practices of shamanism which have been developed in the former Yoruba Kingdom in West Africa (now Ghana, Nigeria, Benin). Researchers like Winkelman addressed the perspective that shamanism (traditional healing) uses different techniques to access different modes of consciousness and to integrate deeper (evolutionary older) brain levels for perception and cognitive processing within a healing process or a process of preparation (ceremonies that are likened to superstitious rituals). These ceremonies are intended to re-connect participants to individual, natural, and supernatural sources of healing and life. They are techniques to improve (work on, actualize, or realize) personal and social anticipation in life, often used to prepare people for significant events in life (Schack & Schack, in press). Therefore, we could assume that PGRs are routed to some degree in traditional healing ceremonies and particular practices for healing, anticipation, and orientation in life. The health and mental related effects of particular (shamanic-based) PGRs could be a special issue of empirical research. These effect related studies should consider the cultural and historical framework and be conducted in any culture-specific context (Sub-Saharan) and possibly elsewhere.

260 ***Building bridges between PGRs and PPRs***

It is very important to draw the distinction between PGRs and PPRs. PGR bear some resemblance with PPRs, in that both involve formal, repetitive, and sequential behaviours but are functionally different (Womack, 1992). However, PPRs are specifically aimed at facilitating physical performance through learned cognitive and behavioural strategies by athletes (Cohn, 1990). Superstitious rituals possibly act as psychological placebos which indirectly affect individual performance outcomes by influencing athletes' perceived self-control (Bleak & Frederick, 1998). Moran (1996) explains that PPRs are, "a sequence of task-relevant thoughts and actions which an athlete engages in systematically prior to his or her performance of a specific sports skill" (p. 177). They are often used as regulative cognitive-behavioural strategies in the performance process

(Moran, 1996; Singer, 2002; Velentzas, Heinen, Tenenbaum, & Schack, 2010; Wrisberg & Anshel, 1989). They help athletes and other types of performers to increase concentration through focusing on task-relevant cues, to overcome any susceptibility to dwell on negative thoughts, aid in the selection of appropriate performance behaviours, and prevent undue attention to the mechanics of an automated skill (Cotterill, 2011).

Athletes also use PPRs to focus on attention, minimize distractions, reduce anxiety, improve confidence, and help with mental preparation for upcoming performances (Lidor & Singer, 2000; Weinberg & Gould, 2003). Principally, athletes use PPRs to focus exclusively on a series of well-rehearsed cues, which in turn reduces the athlete's tendency to dwell on potentially damaging thoughts, such as winning or losing, negative evaluations of self or self-efficacy, or physically performing the actions themselves (Boutcher & Crews, 1987). PPRs are recommended to include both task-relevant thoughts and task-relevant actions. Utilizing both thoughts and actions helps to maximize the benefits of PPRs (Boutcher, 1992). Over the past decade, the use of PPRs has been explored across a wide range of sports; basketball (Czech, Ploszay, & Burke, 2004; Harle & Vickers, 2001; Lonsdale & Tam, 2007; Mack, 2001), cricket (Cotterill, 2011), dance (Vergeer & Hanrahan, 1998), golf (Cotterill, 2008; Cotterill, Sanders, & Collins, 2010; Kingston & Hardy, 2001; McCann, Lavalley, & Lavalley, 2001; Shaw, 2002), gymnastics (Schack, 1997), rugby union (Jackson, 2003; Jackson & Baker, 2001), volleyball (Lidor & Mayan, 2005; Velentzas et al., 2010; Velentzas, Heinen, Tenenbaum, & Schack, 2011), and water polo (Marlow, Bull, Heath, & Shambrook, 1998).

Theoretical underpinning and functions of PPRs

Several psychological models and theories have been formulated to clarify the guidelines for a perfect competitive mental preparation, and to evaluate the empirical effects of PPRs and related psychological skill development (Taylor, 1995; Wrisberg & Anshel, 1989). Different perspectives about PPRs could be derived from theories such as the Attentional Control theory (Ansari, Derakshan, & Richards, 2008; Boutcher, 1990; Corbetta & Shulman, 2002; Eysenck, Derakshan, Santos, & Calvo, 2007; Friedman & Miyake, 2004; Miyake et al., 2000), Action Set Hypothesis (Schack, Whitmarsh, Pike, & Redden, 2005; Schmidt, 1988; Schmidt & Lee, 1998), Mental Rehearsal Theory (Cohn, 1990; Schack, et al., 2005; Schmidt, 1988), and Mental Calibration Model (Lidor, Hackfort, & Schack, 2014; Schack, Whitmarsh, Pike, & Redden, 2005).

The role PPRs play is to create a mindset that initiates optimal physiological preparation. A positive mindset includes establishing a performance goal, generating positive mental rehearsal, and identifying mental tools such as self-instruction (cue words or short phrases) that athletes can use to trigger beneficial performance reactions. This mindset acts as a foundation for all future competition related actions. Research on routines has proven that cue words have stabilizing effects on performance by facilitating effective focus in training and competition. They direct attention to essential task-relevant information that subsequently enhance skill execution (Boutcher, 1990).

Therefore, if the suggested primary functions of PPRs include influencing the performer's ability to deal with distractions (Boutcher & Crews, 1987; Gould & Udry, 1994; Maynard, 1998; Weinberg, 1988), focusing attention (Boutcher, 1992; Harle & Vickers, 2001), acting as a trigger (Boutcher & Crews, 1987; Lonsdale & Tam, 2007; Moran, 1996; Schack, 2002), enhancing ability to focus and recalling physiological and psychological states (Foster et al., 2006; Marlow et al., 1998; Schack et al., 2005), and reducing the unravelling of automaticity (Beilock & Carr, 2001; Beilock, Carr, MacMahon, & Starks, 2002), exploring how localized PGRs could be integrated formally into PPRs to facilitate optimal performance will be interesting. The next discussion focuses on this approach.

Integration of localized PGRs into PPRs

Ghanaians, like Nigerians, and other Sub-Saharan Africans cherish their cultural heritage through their traditional beliefs and social systems like religion and spirituality. Most official social gatherings including sport events are preceded by fervent prayers, singing, drumming, dancing, and other traditional practices. Cultural praxis focuses on helping practitioners develop a set of congruent behaviours and attitudes that reflect how cultural and socio-political influences shape individuals across cultures, without compromising other health-related behaviours. These factors are supposed to interact at multiple levels to influence any psychological practice under the notion of cultural competence (Comas-Diaz, 2011; Hanrahan, 2010; Ryba et al., 2013; Schinke & Moore, 2011). A theme under cultural competence is the challenge of delivering evidence-based interventions that maintain respect for and consideration of cultural characteristics including religion and spirituality (Ryba et al., 2013; Schinke & Moore, 2011). Therefore, the goal of sport psychology consultancy in the Sub-Saharan region should attempt to diffuse and integrate localized PGRs into PPRs as interventions to optimize sport performance.

Group and individual prayers

One spiritual practice that can easily be integrated in PPRs is the use of prayers either through group or individual sessions (Ikulayo & Semidara, 2011). As already alluded to, many Sub-Saharan Africans have strong belief that prayers contribute to success in any human endeavour because of spiritual faith through notable religions (Christianity, Islamic, and Traditional). The self-efficacy in these religions is hinged on the assumption that there is a supreme-being somewhere who can easily turn the course of events towards one's favour through a communion. Prayers serve as earthly licence for supernatural interventions which are multi-functional in nature. For those athletes who believe in the effectiveness of such prayers, the practice should be encouraged.

These prayers are likened to the process of hypnosis (Ichimura, 1998; Ikulayo, 1990, 2003). For those unacquainted with prayers, an induction process of getting involved are initiated. This process involves the use of suggestions and metaphors while establishing an anchor between the mind and body (Hadfield, 2014). These suggestions are given to alter perceptions, thoughts, feelings, and sensations which facilitate a long-term change in behaviour through verbal persuasion and imagery (Heap & Aravind, 2002). Through adoption and adherence of group prayers, athletes are likely to develop group cohesion, tolerance, cooperation, group integration, an understanding of one another, and interpersonal trust. Additionally, prayers are also used to promote emotional control and positive thought processes and to help block inhibitory thoughts that may impair one's ability to perform optimally (Ikulayo & Semidara, 2011). Once athletes understand this as a collaborative exercise, integrating them into PPRs can easily be controlled during usage for the desired results to be achieved.

Local songs

The use of songs is a common practice in Ghana and many other countries in the Sub-region for various reasons. Songs are used for worshipping one's supreme-being, requesting divine favour, as well as giving thanks and praises for an accomplished mission. These songs are usually characterized by either being in a relaxed or sober mood or by dancing, clapping of hands, and general body movement in different directions in a secluded or open area. Depending on the type of songs used, an instrumental music with clear melody, minor key, and vocalization, could serve as a relaxation technique by aiding attention, concentration, fine-tuning of muscles, and harmonization of one's emotions before an upcoming performance. As an activation technique, Ghanaian "hip-life, high-life" or gospel music

with numerous rhythms, instrumentation, and vocalization, could be used to energize athletes by increasing muscle temperature, tone, breathing with an elevated heart rate, and general arousal. They also improve motivation and alertness for the task at hand while blocking task irrelevant thoughts and distractions. Therefore, finding the “right local music” to integrate in PPRs may help promote pre-performance mood and/or flow states of athletes (Jackson, 1995; Karageorghis & Deeth, 2002; Karageorghis & Terry, 1997; Karageorghis, Terry, & Lane, 1999).

Psyching verses and verbalization

Psyching verses and verbalization are usually performed by many athletes from Sub-Saharan Africa. These are cue words or short phrases that are grouped together to elicit concentration, attention, instil confidence, and project dominance (Ikulayo & Semidara, 2011). Overtly, they are directional psychological words that are instructive in nature, and performed in unison prior to competitive fixtures. These words are believed to foster an individuals’ assertiveness, encourage group cohesion, and togetherness (Adewunmi, 2006; Ikulayo, 2000, 2003; Semidara, 2011). They are intended to enhance confidence, to bring enthusiasm into direct action (form of arousal), and to help the athlete persevere in the midst of challenges. The words are said with much force, energy, and belief. As the words are said, a certain level of efficacy is hoped for. Some individuals believe that the chanting is expected to invoke spiritual powers.

Presumably, some of these words are thought to be real and also believed to instil confidence and the requests are expected to be fulfilled without any setback. According to Ikulayo and Semidara (2011), performing these actions with faith, energy, force, and confidence, and by the time the last incantation word is spoken with such increasing vigour and energy, the athletes feel as if they have accomplished their mission. With confidence now established, the athletes begin their performance with certainty that they are already winners before the competition starts. Psyching verses are similar to self-talk, which are also multidimensional in nature concerned with athletes’ verbalizations that are addressed to themselves both overtly and covertly. It is difficult to ascertain whether athletes from this region perform these verbalizations in the covert form. Described as inner speech, athletes silently verbalize feelings, perceptions, and regulate their thoughts, instruct, and reinforce themselves (Weinberg, Natsis, Douma, & Kazakas, 2000). We do encourage the use of both overt and covert verbalizations due to their usefulness.

A typical cue could be taken from the “Haka”, a native pre-game ritual, passionately performed in a form of postural dance. This ritual comprises a combination of verbalizations, psyching verses, chanting, and primal scream by “All Blacks” (New Zealand rugby national team) and other rugby representatives. The dance looks fascinating and scary, done in an attempt for players to superimpose their dominance over their respective opponents. New Zealanders believe the “Haka” is part of their cultural heritage that typifies bravery, resilience, assertiveness, determination, desire, confidence, and commitment. Players have accepted, believed, adhered to, and carried this tradition over the past decades to their advantage in major international competitions. By developing, adopting, and adhering to similar culturally diversified practices over time, athletes from Sub-Saharan Africa and perhaps elsewhere, could positively influence their psychological states before competition.

Use of “Jama”

Specifically in Ghana, the word “Jama” (“Gyama”) means group morale or team spirit. “Jama” activity may be quite boisterous and usually includes rhythmic up and down tempo singing or chanting with a chorus. This phenomenon, common in many parts of Sub-Saharan Africa, is often accompanied by playing local musical instruments like drums (e.g. Ghana; “Kpanlogo,

Djembe, Dondo”, etc.) and other percussive instruments (e.g. beaded gourd instrument, iron bell), and/or horns/flutes/trumpets (“Atenteben”). The singing mostly involves synchronized hand clapping and rhythmic dancing (e.g. jumping up and down, sideways) while waving handkerchiefs or flags, and other paraphernalia. During “Jama”, local songs are composed depending on whether it’s being performed in a secular or religious setting, and on the occasion and place.

In the process of “Jama” in a sport specific context, some motivating words are intelligently used and appellations are said on behalf of team members (athletes and officials) before and during events. “Jama” groups carefully select some good deeds; positive or great things players and officials alike had previously done and expected to be replicated in their forthcoming competition. Athletes also engage in “Jama” during training sessions and before events. For example, soccerers use “Jama” in their dressing rooms few moments before being ushered on to the field of play. This is believed to have a powerful stimulating effect, increase confidence, morale, and mood enhancement prior to competition. Based on these, many supporter groups are often encouraged by officialdom through different forms of support to attend all sporting events. We believe that the right content, structure, and timing of “Jama” usage as part of PPRs will go a long way in enhancing athletes flow states before and during sport engagements.

Concluding remarks

We believe that issues about spirituality are pervasive in indigenous Sub-Saharan culture and perhaps elsewhere. These cannot be ignored or allowed to be on the fringes within applied sport psychology consultancy. Therefore, sport psychologists, coaches, and trainers have an arduous challenge of delivering evidence-based interventions that maintain respect for and consideration of cultural characteristics including religion, spirituality, and the health status of athletes (Ryba et al., 2013; Schinke & Moore, 2011).

If the ultimate goal of PGRs is for athletes to produce peak performance that win competitions, then their designing and implementation should be incorporated into formalized PPRs. Athletes should be helped to develop a deeper understanding toward their effective and active adaptation. Such interventions should influence athletes’ ability to consistently sustain their ideal performance state during adversities before and during competition. Performing to one’s potential requires good technique, tactical, and mental skills; a form of a bridge between the physical, mental, and tactical components of sport (Schack et al., 2005). This bridge allows for the utilization of a number of cognitive and behavioural tools (Moran, 1996; Singer, 2002; Velentzas et al., 2010; Wrisberg & Anshel, 1989). Fluctuations in sports performance are often traceable to psychological ups and downs. Athletes who create a special atmosphere within themselves perform consistently and achieve success. They are in total control of their emotions, positive, and realistic about competition goals and success, and generally calm and relaxed under pressure situations. They also exhibit mental alertness, are focused, confident, and responsible for their actions, ready for action, and are usually energetic and determined.

Future research is therefore required to explore the effects of some of these localized PGRs as part of PPRs using an effective intervention approach on sport performance. By empirically testing specific movement structures (e.g. behavioural through biomechanical measurements), psychological states of the athlete (cognitive), and related neurocognitive states through appraisals (e.g. Schack & Hackfort, 2007; Schack & Mechsner, 2006), can we ascertain the efficacy of these practices on athletic enhancement. These components thus provide a basic understanding of how localized PGRs and PPRs could be integrated in a unified process. More studies are required to understand the empirical effects, neurocognitive and motivational background of PGRs, and their usage through possible integrative approaches with PPRs. The basis for such studies should hinge on culturally diversified perspectives.

AQ15 References

- ▲ Adams, J. A. (1961). The second facet of forgetting: A review of warm-up decrement. *Psychological Bulletin*, 58(4), 257–273.
- AQ16 ▲ Adewunmi, M. C. (2006). *The effect of psychological readiness on performance of tennis players preparing for international and national competitions*. (Unpublished doctoral thesis). Department of Human Kinetics, University of Lagos.
- 455 Ansari, T. L., Derakshan, N., & Richards, A. (2008). Effects of anxiety on task-switching: Evidence from the mixed antisaccade task. *Cognitive, Affective, & Behavioral Neuroscience*, 8, 229–238.
- Baron, R. A., Branscombe, N. R., & Byrne, D. (2009). *Social psychology* (12th ed.). Boston, MA: Pearson/Allyn and Bacon.
- Baumeister, R. F., & Showers, C. J. (1986). A review of paradoxical performance effects: Choking under pressure in sports and mental tests. *Journal of Social Psychology*, 16, 361–383.
- 460 BBC Sport. (2002, January 16). *Witchdoctors banned from nations cup*. Retrieved from http://news.bbc.co.uk/sport2/hi/football/africa/cup_of_nations/1764864.stm
- Beilock, S. L., & Carr, T. H. (2001). On the fragility of skilled performance: What governs choking under pressure? *Journal of Experimental Psychology: General*, 130, 701–725.
- Beilock, S. L., Carr, T. H., MacMahon, C., & Starks, J. L. (2002). When paying attention becomes counter-productive: Impact of divided versus skill focused attention on novice and experienced performers of sensorimotor skills. *Journal of Experimental Psychology: Applied*, 8, 6–16.
- 465 Bentulan, R. (2003). *The use of superstitions and its perceived effectiveness of collegiate athletes: Sport type and gender considerations*. (Master of Science thesis). Faculty of California State University, Fullerton.
- 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, 1–15.
- Boateng, I. “Opeepele”. (2009, July 10–13). Superstition in premier league. *Graphic Sports*, p. 2.
- 470 Boutcher, S. H. (1990). The role of performance routines in sport. In J. G. Jones & L. Hardy (Eds.), *Stress and performance in sport* (pp. 231–245). New York, NY: John Wiley.
- Boutcher, S. H. (1992). Attentional processes and sport performance. In T. S. Horn (Ed.), *Advances in sport psychology* (pp. 251–266). Champaign, IL: Human Kinetics.
- Boutcher, S. H., & Crews, D. J. (1987). The effect of pre-shot attentional routine on a well learned skill. *International Journal of Sport Psychology*, 18, 30–39.
- Brevers, D., Dan, B., Noel, X., & Nils, F. (2011). Sport superstition: Mediation of psychological tension on non-professional sportsmen's superstitious rituals. *Journal of Sport Behavior*, 34(1), 3.
- 475 AQ17 ▲ Brewer, B. W. (1993). Self-identity and specific vulnerability to depressed mood. *Journal of Personality*, 61(3), 343–364.
- AQ18 ▲ Catsoulis, S. (2011). *Black cats and hockey tape: Investigating routines and superstitions among professional hockey athletes: A qualitative study*. (Master of Arts thesis). Graduate Program in Kinesiology and Health Science, York University, Ontario.
- 480 Cohn, P. J. (1990). Pre-performance routines in sport: Theoretical support and practical applications. *The Sport Psychologist*, 4, 301–312.
- Comas-Diaz, L. (2011). Interventions with culturally diverse populations. In D. H. Barlow (Ed.), *The Oxford handbook of clinical psychology* (pp. 868–887). New York, NY: Oxford University Press.
- Corbetta, M., & Shulman, G. L. (2002). Control of goal-directed and stimulus-driven attention in the brain. *Nature Reviews Neuroscience*, 3, 215–229.
- 485 Cotterill, S. T. (2008). Developing effective pre-performance routines in golf. *Sport & Exercise Psychology Review*, 4(2), 10–15.
- Cotterill, S. T. (2011). Experiences of developing pre-performance routines with elite cricket players. *Journal of Sport Psychology in Action*, 2(2), 81–91. doi:10.1080/21520704.2011.584245
- Cotterill, S. T., Sanders, R., & Collins, D. (2010). Developing effective pre-performance routines in golf: Why don't we ask the golfer? *Journal of Applied Sport Psychology*, 22(1), 51–64. doi:10.1080/10413200903403216
- 490 Czeck, D. R., Ploszay, A., & Burke, K. L. (2004). An examination of the maintenance of pre-shot routines in basketball free throw shooting. *Journal of Sport Behavior*, 27, 323–329.
- Eysenck, M. W., Derakshan, N., Santos, R., & Calvo, M. G. (2007). Anxiety and cognitive performance: Attentional control theory. *Emotion*, 7, 336–353.
- Flanagan, E. (2013). *Superstitious ritual in sport and the competitive anxiety response in elite and non-elite athletes*. Bachelors Final Year Project, Dublin Business School, Dublin.
- AQ19 ▲

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.

Friedman, N. P., & Miyake, A. (2004). The relations among inhibition and interference control functions: A latent-variable analysis. *Journal of Experimental Psychology: General*, 133, 101–135.

Ghana Football Association. (2006). *Football regulations*, Article 17(b). Accra.

Ghana News Agency. (2005, November 11). *GFA refers allegation to Disciplinary Committee*. Retrieved from <http://www.modernghana.com/news/2/89974/2/gfa-refers-allegation-to-disciplinarycommittee.html>

Gould, D., & Udry, E. (1994). Psychological skills for enhancing performance: Arousal regulation strategies. *Medicine and Science in Sport and Exercise*, 26, 478–485.

AQ20 Hadfield, D. (2014). Rugby in New Zealand. In P. C. Terry, et al. (Eds.), *Secrets of Asian sport psychology*. Retrieved from <http://peterterry.wix.com/books>

Hanrahan, S. J. (2010). Culturally competent practitioners. In S. J. Hanrahan & M. B. Andersen (Eds.), *The Routledge handbook of applied sport psychology: A comprehensive guide for students and practitioners* (pp. 460–468). London: Routledge.

Hanrahan, S. J. (2011). Sport psychology services are multicultural encounters: Differences as strengths in therapeutic relationships. In D. Gilbourne & M. B. Andersen (Eds.), *Critical essays in applied sport psychology* (pp. 145–156). Champaign, IL: Human Kinetics.

Harle, S. K., & Vickers, J. N. (2001). Training quiet eye improves accuracy in basketball free throw. *The Sport Psychologist*, 15, 289–305.

Heap, M., & Aravind, K. A. K. (2002). *Hartlands medical and dental hypnosis* (4th ed.). London: Churchill Livingstone.

Ichimura, S. (1998). *Meditation of esoteric Bhuddism for athletes*. Paper presented at the Seoul Olympic Scientific Conference, Korea, Seoul.

Ikulayo, P. B. (1989, July). *Psychological intervention for achievement in sports*. Keynote lecture presented at the 7th World Congress of the International Society of Sport Psychology, Singapore.

Ikulayo, P. B. (1990). *Understanding sports psychology*. Lagos: EA/TCN Press.

Ikulayo, P. B. (2000, February). *Psyching verses: A practical approach to psyching sessions with women footballers*. Workshop presented at the Pre-Olympic Games in Sydney and Africa women's football championship, Johannesburg, South Africa.

Ikulayo, P. B. (2003). *The mind and the body: Sports psychology as the cornerstone to sport achievements and greatness*. Lagos: University of Lagos Press.

Ikulayo, P. B. (2007). *Understanding sports psychology*. Lagos: University of Lagos Press.

Ikulayo, P. B. (Ed.). (2008). *Exploring multifaceted dimensions in exercise and sports psychology*. Ibadan: Olu Akin.

AQ21 Ikulayo, P. B., & Semidara, J. A. (2011). Culturally informed sport psychology practice: Nigeria in perspective. *Journal of Clinical Sport Psychology*, 5(4), 339–349.

Jackson, S. A. (1995). Factors influencing the occurrence of flow states in elite athletes. *Journal of Sport & Exercise Psychology*, 7, 138–166.

Karageorghis, C. I., & Deeth, I. P. (2002). Effects of asynchronous motivational and oudeterous music on perceptions of flow. *Journal of Sports Sciences*, 20, 66–67.

Karageorghis, C. I., & Terry, P. C. (1997). The psychophysical effects of music in sport and exercise: A review. *Journal of Sport Behavior*, 20, 54–68.

Karageorghis, C. I., Terry, P. C., & Lane, A. M. (1999). Development and initial validation of an instrument to assess the motivational qualities of music in exercise and sport: The Brunel Music Rating Inventory. *Journal of Sports Sciences*, 17, 713–724.

Kingston, K. M., & Hardy, L. (2001). Pre-performance routine training using holistic process goals. In P. R. Thomas (Ed.), *Optimizing performance in golf* (pp. 264–278). Brisbane: Australian Academy Press.

AQ22 “Kotoko has spent 90,000 cedi on Juju.” Retrieved from <http://www.sportsinghana.com>

Langer, E. J. (1975). The illusion of control. *Journal of Personality & Social Psychology*, 32, 311–328.

Leistner, E. (2014). Witchcraft and African development. *African Security Review*, 23(1), 53–77.

Lerner, M. J. (1965). Evaluation of performance as a function of performer's reward and attractiveness. *Journal of Personality and Social Psychology*, 1, 355–360.

Lidor, R., Hackfort, D., & Schack, T. (2014). Performance routines in sport: Meaning and practice. In A. Papaioannou & D. Hackfort (Eds.), *Routledge companion to sport and exercise psychology: Global perspectives and fundamental concepts* (pp. 480–494). London: Routledge.

Lidor, R., & Mayan, Z. (2005). Can beginning learners benefit from pre-performance routines when serving in volleyball? *The Sport Psychologist*, 19, 343–363.

- Lidor, R., & Singer, R. N. (2000). Teaching pre-performance routines to beginners. *Journal of Physical Education, Recreation, & Dance, 71*, 34–36.
- Lonsdale, C., & Tam, J. T. M. (2007). On the temporal and behavioral consistency of pre-performance routines: An intra-individual analysis of elite basketball player's free throw shooting accuracy. *Journal of Sports Sciences, 26*, 259–266. doi:10.1080/02640410701473962
- 545 Mack, M. G. (2001). Effects of time and movements of the pre-shot routine on free throw shooting. *Perceptual and Motor Skills, 93*, 567–573. doi:10.2466/pms.2001.93.2.567
- Marlow, C., Bull, S. J., Heath, B., & Shambrook, C. J. (1998). The use of a single case design to investigate the effect of a pre-performance routine on the water polo penalty shot. *Journal of Science and Medicine in Sport, 1*(3), 143–155. doi:10.1016/S1440-2440289829800108
- Maynard, I. W. (1998). *Improving concentration*. Leeds: National Coaching Foundation.
- 550 McCann, P., Lavallee, D., & Lavallee, R. (2001). The effect of pre-shot routines on golf wedge shot performance. *European Journal of Sport Science, 1*(5), 1–10. doi:10.1080/17461390100071503
- Miyake, A., Friedman, N. P., Emerson, M. J., Witzki, A. H., Howerter, A., & Wagner, T. D. (2000). The unity and diversity of executive functions and their contributions to complex “frontal lobe” tasks: A latent variable analysis. *Cognitive Psychology, 41*, 49–100.
- Moran, A. P. (1996). *The psychology of concentration in sport performers: A cognitive analysis*. Hove: Psychology Press.
- 555 Neil, G. (1980). The place of superstition in sport: The self-believing prophecy. *Coaching Review, 3*, 40–42.
- Ofori, P. K., Biddle, S., & Lavallee, D. (2012). The role of superstition among professional footballers in Ghana. *Athletic Insight, 4*(2), 115.
- AQ23 ▲ Pannenberg, A. (2008). *How to win a football match in Cameroon: An anthropological study of Africa's most popular sport*. Leiden: African Studies Centre.
- Pannenberg, A. (2012). *Big men playing football: Money, politics and foul play in the African game*. Leiden: African Studies Centre.
- 560 Plante, T. G. (2007). Integrating spirituality and psychotherapy: Ethical issues and principles to consider. *Journal of Clinical Psychology, 63*, 891–902.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs, 80*, 1–28.
- Rudski, J. (2001). Competition, superstition and the illusion of control. *Current Psychology: Developmental, Learning, Personality, Social, 20*(1), 68–84.
- 565 Rudski, J. (2004). The illusion of control, superstitious belief, and optimism. *Current Psychology: Developmental, Learning, Personality, Social, 22*(4), 306–315.
- Ryba, T. V., Stambulova, N. B., Si, G., & Schinke, R. (2013). ISSP position stand: Culturally competent research and practice in sport and exercise psychology. *International Journal of Sport and Exercise Psychology, 11*, 123–142.
- Ryba, T. V., & Wright, H. K. (2005). From mental game to cultural praxis: A cultural studies model's implications for the future of sport psychology. *Quest, 57*, 192–212. doi:10.1080/00336297.2005.10491853
- 570 Ryba, T. V., & Wright, H. K. (2010). Sport psychology and the cultural turn: Notes toward cultural praxis. In T. V. Ryba, R. J. Schinke, & G. Tenenbaum (Eds.), *The cultural turn in sport psychology* (pp. 1–28). Morgantown, WV: Fitness Information Technology.
- Sarkar, M., Hill, D. M., & Parker, A. (2015). Reprint of: Working with religious and spiritual athletes: Ethical considerations for sport psychologists. *Psychology of Sport and Exercise, 17*, 48–55.
- AQ24 ▲ Schack, T. (1997). *Ängstliche Schüler im Sport – Interventionsverfahren zur Entwicklung der Handlungskontrolle*. Schorndorf [Anxious students in sport: Intervention procedures for the development 665 of controls]. Schorndorf: Hofmann.
- 575 Schack, T. (2002). *Zur kognitiven Architektur von Bewegungshandlungen. Modelltheoretischer Zugang und experimentelle Untersuchungen*. Unpublished Habilitation, Department of Psychology, German Sport University, Cologne.
- Schack, T. & Hackfort, D. (2007). An action theory approach to applied sport psychology. In G. Tenenbaum & R. C. Eklund (Eds.), *Handbook of sport psychology* (3rd ed., pp. 332–351). NJ: Wiley.
- AQ25 580 ▲ Schack, T., & Mechsner, F. (2006). Representation of motor skills in human long term memory. *Neuroscience Letters, 391*, 77–81.
- Schack, T., & Schack, E. (in press). Anticipation in traditional healing ceremonies: The call from our past. In M. Nadin (Ed.), *Anticipation in medicine*. New York, NY: Springer.
- AQ26 ▲ Schack, T., Whitmarsh, B., Pike, R., & Redden, C. (2005). Routines. In J. Taylor & G. Wilson (Eds.), *Applying sport psychology: Four perspectives* (pp. 137–150). Champaign, IL: Human Kinetics.
- 585 Schinke, R. J., & Hanrahan, S. (Eds.). (2009). *Cultural sport psychology*. Champaign, IL: Human Kinetics.

Schinke, R. J., & Moore, Z. E. (2011). Culturally informed sport psychology: Introduction to the special issue. *Journal of Clinical Sport Psychology*, 5, 283–294. Retrieved from <http://journals.humankinetics.com/jcsp>

Schippers, M. C., & Van Lange, P. A. M. (2006). The psychological benefits of superstitious rituals in top sport: A study among top sportspersons. *Journal of Applied Social Psychology*, 36, 10, 2532–2553.

Schmidt, R. (1988). *Motor control and learning. A behavioral emphasis* (2nd ed). Champaign, IL: Human Kinetics.

Schmidt, R. A., & Lee, T. D. (1998). *Motor control and learning. A behavioral emphasis*. Champaign, IL: Human Kinetics.

Schmidt, R. A., & Pepper, E. (1998). Strategies for training. In J. Williams (Ed.), *Applied sport psychology: Personal growth to peak performance* (pp. 316–328). Mountain View, CA: Mayfield.

▲ Shaw, D. (2002). Confidence and the pre-shot routine in golf: A case study. In I. Cockerill (Ed.), *Solutions in sport psychology* (pp. 108–119). London: Thomson.

Singer, R. N. (2002). Pre-performance state, routines, and automaticity: What does it take to realize expertise in self-paced events? *Journal of Sport & Exercise Psychology*, 24, 359–375.

Skinner, B. F. (1948). ‘Superstition’ in the pigeon. *Journal of Experimental Psychology*, 38, 168–172.

Stambulova, N. B., & Ryba, T. V. (2014). A critical review of career research and assistance through the cultural lens: Towards cultural praxis of athletes’ careers. *International Review of Sport and Exercise Psychology*, 7, 1–17.

Taylor, J. (1995). A conceptual model for integrating athletes’ needs and sport demands in the development of competitive mental preparation strategies. *Sport Psychologist*, 9, 339–357.

The Guardian Blog. (2008, February 2). Juju, hype and heat reign as the Black Stars target the Super Eagles. Retrieved from <http://www.guardian.co.uk/sport/blog/2008/feb/03/jujuhypeandheatreignasth>

Todd, M., & Brown, C. (2003). Characteristics associated with superstitious behavior in track and field athletes: Are there NCAA divisional level differences? *Journal of Sport Behavior*, 26, 168–187.

Van Raalte, J. L., Brewer, B. W., Nemeroff, C. J., & Linder, D. E. (1991). Chance orientation and superstitious behavior on the putting green. *Journal of Sport Behavior*, 14, 41–50.

Velentzas, K., Heinen, T., Tenenbaum, G., & Schack, T. (2010). Functional mental representation of volleyball routines in German youth female national players. *Journal of Applied Sport Psychology*, 22, 474–485.

Velentzas, K., Heinen, T., Tenenbaum, G., & Schack, T. (2011). Routine integration strategies and their effects on volleyball serve performance and players’ movement mental representation. *Journal of Applied Sport Psychology*, 23, 209–222. doi:10.1080/10413200.2010.546826

Vergeer, I., & Hanrahan, C. (1998). What modern dancers do to prepare: Content and objectives of pre-performance routines. *Avante*, 4, 49–71.

Vesely, M. (2004, December). Giving witchcraft the boot. *African Business*. Retrieved from http://findarticles.com/p/articles/mi_qa5327/is_304/ai_n29142216/

Vyse, S. A. (1997). *Believing in magic*. New York, NY: Oxford University Press.

Weinberg, R., Natsis, P., Douma, I., & Kazakas, P. (2000). The effects of motivational versus instructional self-talk on improving motor performance. *Sport Psychologist*, 14(3), 253–271.

Weinberg, R. S. (1988). *The mental advantage*. Champaign, IL: Leisure Press.

Weinberg, R. S., & Gould, D. (2003). *Foundations of sport and exercise psychology* (3rd ed.). Champaign, IL: Human Kinetics.

Weiner, B. (1990). History of motivational research in education. *Journal of Educational Psychology*, 82, 616–622.

▲ Winkelman, M. (2010). *Shamanism: A biopsychosocial paradigm of consciousness and healing* (2nd ed.). Oxford: Praeger.

Womack, M. (1979). Why athletes need ritual: A study of magic among professional athletes. In W. J. Morgan (Ed.), *Sport and the humanities: A collection of original essays* (pp. 27–38). Knoxville, TN: The Bureau of Educational Research and Service, College of Education, The University of Tennessee.

Womack, M. (1992). Why athletes need a ritual: A study of magic among professional athletes. In S. Hoffman (Ed.), *Sport and religion* (pp. 191–202). Champaign, IL: Human Kinetics.

Wright, P. B., & Erdal, K. J. (2008). Sport superstition as a function of skill level and task difficulty. *Journal of Sport Behavior*, 57(2), 187–199.

▲ Wisberg, C. A., & Anshel, M. H. (1989). The effect of cognitive strategies on the free throw shooting performance of young athletes. *The Sport Psychologist*, 3, 95–104.