The Experience of Preshot Routines among Professional Golfers: An Existential Phenomenological Investigation

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Abstract:

A crucial component of performance excellence is the ability to maintain focus on relevant cues. Focusing on irrelevant information can cause inconsistency during performance (Boutcher & Crews, 1987). Both cognitive and behavioral routines have been shown to significantly increase relevant focus in the sport of golf (Cohn, Rotella, & Lloyd, 1990). Despite this evidence, little research has examined preshot routines from a qualitative perspective. The purpose of the current study was to gain a phenomenological understanding of preshot routines among elite professional golfers. Eight professional golfers were interviewed for the study. The primary research question for this study was: What is the lived experience of elite professional golfers when they utilize a preshot routine? The major themes which emerged from the data analysis included: maintaining focus, physical aspects of the routine, and shot type. Several subthemes were also identified for each major theme. Recommendations on the use of preshot routines are discussed.

Introduction

Crews and Boutcher (1986) have defined preshot routines as "a set pattern of cue thoughts, actions, and images consistently carried out before the performance of a skill" (p. 291). A combination of cognitive and behavioral routines has been shown to be beneficial for obtaining an optimal physical and mental state prior to motor execution (Cohn, 1990). Cognitive routines may consist of cue words, visualization, and self talk. Behavioral routines can be characterized physical rehearsal. as including focused attention on the desired target (Cohn, 1990).

Researchers suggest that golf, as a closed motor skill, is a sport in which preshot routines can be beneficial to performance outcomes (Crews & Boutcher, 1986). Several theories have been offered which explain how routines function to effectively enhance performance (Cohn, 1991). The schema theory implies that preshot routines recreate motor movements in a generalized thought format that can be retrieved and used as a template (Schmidt, 1988). The mental rehearsal theory suggests before positively imagining skill a performance can transfer to the actual performance of the skill (Cohn, 1990). Lastly, the set hypothesis explains how

warm-up decrements, which are defined as long wait periods that can debilitate performance, can be reduced by utilizing preshot routines (Cohn, 1991). According to the set hypothesis theory, preshot routines can help the performer increase performance by recreating the action before it is performed. Cohn (1991) concludes that utilizing a combination of these theories can be the most optimal explanation.

Preshot routines have been shown to increase concentration in golf, bowling, basketball, tennis, and skiing (Cohn, Rotella, & Loyd, 1990; Kirschenbaum, Ordman, Tomarken, & Holtzbauer, 1982; Lobmeyer & Wasserman, 1986; McCann, Lavallee, & Lavallee, 2001; Moore, 1986; Orlick, 1986; Wrisberg & Pein, 1992). Although there is an abundant amount of quantitative support for preshot routines, research examining the lived experience of golfers using preshot routines from a qualitative perspective is sparse. Qualitative questions like: "What are professional golfer's perceptions of preshot routines?" "What do they think about as their lived describe preshot experience?" and "How important is the preshot routine to a professional golfer?" have yet to be examined in the sport psychology research. Answers to these questions have the potential to help sport scientists understand the lived experience of athletes using this type of technique as well as consultants helping athletes in the development of a routine.

One relevant qualitative model acceptable for gaining insight into golfers' lived experience is the humanistic model, which involves treating a particular group of human beings as unique rather than as regular objects (Hill, 2001). The humanistic model is concerned with gaining an understanding of the person's lived experience through their perspective (Hill,

2001). A type of research methodology that supports the humanistic model is existential phenomenology. By using this type of methodology, phenomenological researchers try to gain a rich description from each individual on how they experienced a particular phenomenon.

As researchers in sport psychology have contended (Dale, 1994; Hanson & Newburg, 1992), qualitative procedures have the potential to bring another perspective to research in sport. The present study will be one of the first existential phenomenological investigations to examine preshot routines among male professional golfers. The main goal of the present study is to provide a "rich description" of professional golfers' preshot routines.

Purpose of the study

The purpose of the present study is to examine professional golfers' experiences of using preshot routines from an existential phenomenological perspective.

Method

Participants

Participants were eight male professional golfers who were competing on one of the following professional tours in the United States: the PGA tour, Senior PGA, Nationwide, and the Hooters Tour. Goodrich (1988) stated that the number of participants in a phenomenological study should not be a statistical issue; therefore the athletes in this study were chosen as a purposeful elite sample (Patton, 2002). A description of each participant is provided in Table 1.

Procedure

Each participant signed an informed consent form. The primary researcher conducted phone interviews in a private setting to ensure anonymity. To increase confidentiality, each participant was given a pseudonym.

The interview consisted of one open-ended existential phenomenological statement which allowed the participants to lead the interview while still providing the primary researcher with the opportunity to ask probing questions when necessary. The initial statement primed participants to think about their preshot routine experience while playing golf and to disclose their thoughts. The following statement was posed to each participant:

"Tell me about a specific time when you utilized a preshot routine during golf performance."

The interview continued with probing questions in order to gain a full understanding participants' of the experience (Patton, 2002). Some of the probing questions included: Can you please explain what you meant by that statement? Can you tell me another time in which you utilized a preshot routine? When asking these questions the researcher used the same vernacular the participants utilized in their answers to avoid imposing biases on the participants (Thompson, Locander, and Pollio 1989).

Data Analysis

The data analysis was adapted from methods developed by Barrell (1988), Goodrich (1988), Hawthorne (1989), Ross (1987), Henderson (1992), and Czech, Wrisberg, Fisher, Thompson, and Hayes (2004) as outlined below.

A. Approaching the Interview

- Interviewing Process
- Interviews were transcribed by a professional transcriptionist
- Obtaining a grasp of the interview

B. Organizing the data

- Eliminate from the data irrelevant, repetitive or overlapping statements
- Group the text into themes using the computer software program, NVIVO

C. Summarizing the interviews

- Preparing major themes and subthemes as summaries of the data
- Verifying the themes with the research team and NVIVO software

D. Releasing meanings

- Finalize major themes and subthemes
- Explain the meaning as it relates to golf

Reliability.

An examination of trustworthiness is paramount to ensure reliability in qualitative research. More specifically, the extent to which a theme truly represents the participants' experiences provides a measure of reliability. In the current study the following questions were used in order to determine the reliability of the study: Did the descriptions capture the participants' experience? Did the structure match the participants' experience? Did the structure emerge from the data? Did others see the description? All of these questions were carefully considered by the research group throughout the course of the analysis.

Validity.

Validity in qualitative research describes whether or not procedures, data, and interpretations of participant narratives are accurate, defensible, and revealing. Procedures should be easily followed and accepted by the reader so that the processes and conclusions are deemed valid. The following questions were used as anchors for validity (Czech et al., 2004).

- Did this description give an accurate picture of the common

features and the structure that was evident in the examples collected?

- Did the interviewer influence the contents of the descriptions to the extent that the actual experience is not truly reflected?
- Are transcriptions accurate?
- Were conclusions other than those offered by the researcher possible in the analysis?
- Did the specific contents and connections in the transcripts provide evidence for structural description?
- Was the structural description specific to one situation, or does it hold for other situations?

Results

After analyzing the data, the description of the preshot routine experience for these eight elite athletes was developed. In this section, quotes from participants are used in order to describe the experience of using preshot routines that emerged from their interviews.

The investigation of the participants revealed three major themes regarding preshot routines including:

- maintaining focus the participants described how the routines often helped with focus,
- 2) physical aspects of the routine the participants described the actual physical experience of the routine,
- 3) shot type- routines were often dependent upon the type of shot that was being performed.

These three major themes formed the structure of the preshot routine experience for professional golfers.

Upon establishing three major themes, researchers identified subthemes within each major theme. For focus, the subthemes included

- (a) focusing on the specific target at hand,
- (b) internal visualization, and
- (c) maintaining consistency.

For the major theme of physical, the subthemes were

- (a) where the participants described standing during the routine,
- (b) the varying amounts of practice swings,
- (c) consistency of use, and
- (d) external visualization.

The last theme, shot types, comprised three subthemes

- (a) full swing shots,
- (b) chipping, and
- (c) putting.

Figure 1 illustrates the major themes, subthemes, and their interrelationships. The interrelationships highlighted the complexity of preshot routines as described by each of the participants.

Theme #1: Maintaining Focus

The first theme that emerged from the data involved the importance of utilizing a preshot routine to maintain focus.

"If you're focused on one thing positive, you automatically can't focus on something negative. So sometimes I will think I'm confident that I'm gonna hit a good shot, so I just step up and hit it. If you say something positive, like, "I am gonna hit my target," or, "It is like me to hit solid," or something like that, it kinda frees you up and almost relaxes you. (Participant #4)

Several subthemes regarding focus emerged. Participants discussed their targets during performance, use of internal visualization to keep them focused during performance, and having a preshot routine to promote consistency and maintain focus during performance.

Focusing on the specific target at hand.

Most of the participants described having some type of target during every shot. A target kept them more focused on a specific area.

"I'll stand behind the ball, take one practice swing, and then try and pick out an exact target that I'm aiming at. Maybe if there's water right, I'll be aiming 15 feet left of the pin, or if there's trouble on the left, maybe aiming down the right side of the fairway. Yeah, that's pretty much it, and then try and zone in on a very specific target." (Participant #2)

One participant made the target as small as possible in order to reduce the margin of error for each shot.

"When you're going through your preshot routine, you'll try and pick out as small a target as possible. Therefore, if you do miss it a little bit, obviously it's gonna be better than if you picked out a broad sort of target." (Participant #2)

"In putting, you'll pick a very, very small spot that you're gonna try and roll the ball over that's like maybe three or four feet in front of you and try and roll it over that. If you're hitting it off the tee, you've got a little bit more room for error." (Participant #2)

For other participants, rather than focus solely on a specific target, they described focus on a specific path that the ball would travel.

"I tee the ball up, and then I stand behind the ball and just take like a little practice swing and just I'm looking at my target. I'm trying to picture the shot like flying in the air right when I'm trying to hit it. Then I go to the ball, and I take five quick glances at my target, and then I go." (Participant #8)

"I call it "burning a line" into the green from the ball to the hole that I want the ball to travel on. I try to focus so hard on a line, like the track that the ball's gonna take. 'Cause by doing that, by focusing hard on blades of grass that connect the ball to the hole, I think that occupies my mind so I can't think of anything else." (Participant #5)

An overall use of preshot routines was used to keep golfers away from distractions or bring them back when distractions transpire.

When a distraction occurred, "instead of just going ahead and putting there, I decided to back off and go through my preshot routine again just to stay focused and concentrate and I ended up making the putt and making birdie. But that

was definitely a point that having a preshot routine really helped." (Participant #4)

Internal Imagery.

Participants obtained focus in preshot routines by visualizing successful performance in the hopes that it would carry over to actual performance.

Many times they visualized how some skill should occur in a positive manner.

"You definitely want to visualize how your stroke should feel kinda in your mind. You're kinda feeling it out visually." (Participant #3)

The golfers in this investigation commented on having so many different shots that they need to determine which one to use at that point in time; using visualization was a great way to determine which kind of shot to use prior to execution.

> "I believe that you need to sort of visualize what you know, so many times you hit so many fades in your life and then so many draws. You've got to sort of visualize one of those coming off." (Participant #7)

Many times the golfers in this study were trying to visualize the technical aspect of how the green is shaped and how this affects the ball. For example participant #1 stated:

"I'm visualizing and I'm walking around the hole. I'll walk all the way around the hole and read the putt from every angle. While I'm doing that, I'm visualizing where I think the ball's gonna go when I'm seeing it." (Participant #1)

"If I have the ball below my feet or something like that I can visualize how it's gonna react off the turf." (Participant #1)

Consistency.

The third subtheme under focus included having a preshot routine to promote consistency. They liked having a routine that is consistent every time, which kept them from having to think about things.

"I think the consistency of it is, you know, I think that's pretty much the biggest thing, and it brings you back to the golf zone. I mean, a preshot routine is something that you can let your mind go when you're not in your shot, when you're walking, but then as soon as you get the club back in, you have to be really focused on what you're gonna do if you're gonna pull something off." (Participant #7)

"I know if you looked at a lot of guys and you start timing them when they start the preshot routine, they usually hit the ball within one or two seconds every single time. If it's like 45 seconds, maybe one time they'll be 46 or 44, but it's really consistent, and it's amazing that it actually ends up being like that because you know you're doing everything exactly the same. It's taking the same amount of time. I think that guys that have really good preshot routines have that timing involved in that. They're just not thinking about what they're doing. It just all happens at the same time every time." (Participant #8)

In summary, the focus theme included focusing on the specific target at hand, using internal visualization, and maintaining a consistent preshot routine. Each of these seemed to help the golfers maintain focus during their competitions which in turn appeared to enhance performance.

Theme #2: Physical Aspects of the Routine
Participants described physical actions that
occurred during their preshot routines. The
physical characteristics indirectly emerged
while participants discussed the structure of
their preshot routine during the interviews.

"I think having a simple, quick routine, for me, helps keep my body relaxed and keeps everything kinda flowing and moving." (Participant #1)

Position.

The majority of the participants described standing during their routine. Three of the golfers described where they stood during certain shots, as well as how standing affected them during performance.

"I'll stand behind it. When I'm standing behind the ball, I have no certain amount of time." (Participant #1)

This participant felt like he could take his time before every single shot. He took his time until he felt like he was ready to execute the shot.

"For a full swing, I stand behind the ball, looking down at my target." (Participant #5)

"I used to do the same read. I read back, side, and then behind the ball, and then I used to stand behind the ball, make one practice stroke with my head down, and then make three smooth practice strokes looking at the hole, so I'm perpendicular to the ball." (Participant #7)

Some golfers had a fairly quick routine as to not be standing in the same spot for too long a period. Time was an important issue to the participants. Golfers in this study liked having something that preoccupied them but did not take up too much time, they liked a routine that is quick and to the point.

Consistency of use.

This theme came about when the participants described how they used their preshot routine consistently. Whether they thought they used it for every shot, every performance and if they did same routine every time.

"I try to do it every time I go play." (Participant #1)

"That's the goal is to try and use the same preshot routine for every shot." (Participant #2)

"I use it every shot. I use it with full shots, putting, chipping, everything you should have a preshot routine" (Participant # 3)

"You try to do the same thing every time to kinda keep the same routine So nothing changes, it's always the same and you're not changing anything." (Participant #3)

"I've had people tell me that that never really watched me play before they think it's funny that I do the exact same thing every time or every shot, so I think my preshot routine is pretty solid." (Participant #8)

For some players, having a routine keeps them on an equal pace during competition as to not speed up more than they should or go slower than they should.

"Just try not to get ahead of myself. If I'm behind or if I'm trying to be a little bit slower, I try to just do the same thing every time no matter what it is between shots. When it's time to hit the shot, I make my preshot routine the same not matter if I've been waiting for a long time or I'm rushing. I try to do the same thing, regardless." (Participant #3)

"I don't actually ever really think about it while I'm doing it, but I just know that I do that exact same thing every time." (Participant #8)

Many of the participants believed that the purpose of a routine was to train your body to do the correct thing at the right time so you do not have to think about the skill when the time comes.

"I just think it's important, because it's almost like you have to train your body to just do the same thing every time no matter what the circumstances are. I mean if you really have a preshot routine, then your timing is gonna be all screwed up." (Participant #8)

Practice swings.

Participants described practice swings which consisted of any shot that took place before they hit their shot. Many of the golfers described how the amount of practice swings would vary between different shots during performance.

"When I'm standing behind the ball, I have no certain amount of time. I could take ten practice swings, I could take two practice swings. It just depends on what type of shot I'm trying to hit and whether I can really visualize it." (Participant #1)

"Usually one practice swing and then I hit it." (Participant #3)

"I started over back behind the ball and we got into it and took my two or three Practice strokes and then got over the ball and make it like normal." (Participant #4)

"The practice swing for a drive or an iron shot, it's usually behind the ball, a couple paces behind the ball. But if I take a practice stroke from the putting green it's right by the ball." (Participant # 4)

"Then once I've read the putt, I get behind it and usually or three steps into the ball and take two or three practice strokes and then step up to the ball and hit it." (Participant #4)

Some of the golfers also discussed how they used these practice swings in order to get the desired swing for a shot or the right feeling before hitting a shot.

"On really long putts, I might take a couple practice strokes behind the ball to get a feel for the speed.

"The key for me where I thought it really worked well for me was I focused on visualizing the target and my practice swings getting the feel for the technical part of it, probably like ten feet or so behind the ball." (Participant #1)

"If I'm behind the ball and I'm trying to hit a draw around a bunker to a dog leg left hole, if I stand

there and make a couple more practice swings to really get that feel before I go in, as opposed to making a certain number of practice swings." (Participant #1)

"Once I've decided what kinda shot I wanna hit, I get behind the ball and make a practice swing that would be similar to the swing I'd make to curve it either way I wanted to curve it. After two of those practice swings, I'd take the steps up to the ball and a couple waggles and would hit it." (Participant #4)

The final subtheme within the physical descriptions theme was what the participants would see during performance.

External Visualization.

Participants frequently described seeing aspects of the shot. They tended to focus on many different aspects when playing in order to execute the shot correctly during performance.

"With putting, I'll walk around the hole, read the putt from all angles, and then I'll stand behind the ball and I'll plum it, which is just to see an extra view for which way I think the putts gonna break." (Participant #1)

"Like I said, once I get behind the ball, I'll plum it one more time to see which way I think it's gonna break, and then right before I walk towards the ball, I'll really see the ball. It's almost like I'm putting to a picture. I just see my putter head coming back and see it striking the ball; see it rolling on the line that I want, and turning in." (Participant #1)

Some of the participants spent much of their focus trying to see as much detail in the environment as possible in order to increase their performance.

"Well, I generally look at the putt from both sides of the hole. Sometimes when I'm reading greens well; I can definitely see kind of a line that my ball should roll on to go in the hole and looks like a little pathway sometimes." (Participant #4)

"Then I walk from the side of the hole and find my speed. The back of the hole, I see my line, and then sideways, at 90 degrees, I see the speed, so I can get into the middle of the putt and back off a little bit and see actually if the putt's uphill or downhill, and I can also see some break in it. And then I get behind my ball, and then this is my final deal, then from there I trace a line. I usually trace a line fromthe hole." (Participant #7)

"I think when I see that line in the green that I'm a little more focused than normal." (Participant #8)

In summary, there were many things that golfers do physically during performance and more specifically during their preshot routine. Though there were many physical aspects to it, the four subthemes of position, practice swings, consistency of use, and external visualization were themes that were prevalent.

Theme #3: Shot Type

In describing their routines, participants frequently distinguished between shot types. Therefore, full swings, chipping, and putting subthemes emerged under the shot type major theme.

Full Swing Shots.

The participants' descriptions of their preshot routines prior to full swing shots are shown in the following statements:

"Then for a full swing, I stand behind the ball, looking down at my target. I would say this year I need to do a better job of actually picturing the shot and kinda picturing the flight of the ball and imagining it landing next to the hole and all that stuff. 'Cause a lotta times I just pick a target, line up my feet, and pull the trigger, and not really spend enough time picturing the shot." (Participant #5)

"I would say when I'm behind a full shot and I'll put my club up to pick my intermediate target. I put a club up, let's see, you gotta plum it." (Participant #5)

"If I'm gonna hit a draw, I try to make a little preliminary swing that incorporates what I do to hit the draw, and then if I want to hit a fade, I make a little swing behind the ball, not a full swing, but a swing that gets the muscles firing." (Participant #7)

Chipping.

According to the participants, chipping was very similar to full swing shots but they had much more control over the swing and could stop it anytime during the motion. For chipping, the routine involved more practice swings as well as more distance determination.

"A preshot routine is going to differ a little bit because with chipping and putting you're going to figure out a distance. But I got to have a certain yardage for certain clubs to figure out what club I'm going to use." (Participant #3)

"So my preshot routine with my irons would be figuring out my distance, figuring out the wind, and then hit the shot." (Participant #3)

The participants described how their chipping routine consisted of different numbers of practice swings prior to execution.

"Chipping, I'd probably take more practice swings and visualize the shot more for chips than I do for, say, full swings." (Participant #5)

"Chipping is just kinda, like I said, I'll just kinda take a bunch of practice strokes, five to seven little practice strokes, some looking down, and then a lot with my head up to kinda visualize how much of a swing I need to make to land it where I need to land it. Then I kinda try to watch the ball nestle up next to the hole. It's probably within one or two each time, but it just kinda depends on how long it takes me to see the shot." (Participant #5)

Putting.

For the majority of the participants, it seemed as if they could more readily describe the specific steps taken during their preshot routine for putting than other shot types. Most of these routines did not seem to change from hole to hole.

"Well, with my putting I do the exact same thing every single time." (Participant #1)

"You know, I pretty much have a ritual on the putting green that I do

the samenumber of strokes every time." (Participant #7)

Three of the participants described in detail the putting routine. They revealed the process that many golfers have taken during their putting preshot routine.

"So for putting basically I read the putt from behind the ball and then I go behind the hole, read it from there. I do that kind of quickly, just because in golf, you can't spend all day looking at your putt. I do that a lot just to kind of feel like walking to the hole, it allows my feet to kinda feel the terrain a little bit and gives me time to think about the putt.

I think the time it takes me to walk to the hole and then back around almost allows my brain to kinda get ready to hit the putt. I think it helps me to do that as much as it helps me to get different perspectives on the putt visually.

On really long putts, I might take a couple practice strokes behind the ball to get a feel for the speed. But most of the time I just go up to the ball, take two practice strokes looking at the hole. I'm actually changing it a little bit now. This year I might take one practice stroke with my head down, then one practice stroke with my head looking at the hole and then just pull the trigger basically.

While I'm over my putts, I try to really, I call it "burning a line" into the green from the ball to the hole that I want the ball to travel on. I try to focus so hard on a line, like the track that the ball's gonna take.

'Cause by doing that, by focusing hard on blades of grass that connect the ball to the hole, I think that occupies my mind so I can't think of anything else." (Participant #5)

"So putting, you also read the putt. You analyze the speed against the green, fast, slow, how much break speed, being the priority, know what speed. The speed will dictate the line that the ball takes, so you concentrate on your speed. You're trying to analyze and visualize. Your eyes are like a movie camera seeing the ball take off and then, where it slows down and then where it drops into the cup, and then you go into your preshot routine of setting up the putter blade. You know, my hand is on my left side as I'm doing that, and then with my right hand I'm setting up the putter face to my intended starting point, aiming that and then getting the shaft angle correct, and then I step into it from there, widening my stance then lastly taking my left hand and putting it on the grip. When I was kind of growing up and seeing Norman putt a lot, Greg Norman, it's kind of a copy of his." (Participant #6)

Another golfer described that "with putting, I'll walk around the hold, read the putt from all angles, and then I'll stand behind the ball and I'll plum it, which is just to see an extra view of which way I think the putt's gonna break. Once I get all that done, I'll walk towards the ball and I'll address like a practice shot, a practice putt." (Participant #1)

"I'm visualizing and I'm walking around the hole. I'll walk all the way around the hole and read the putt from every angle. While I'm doing that, I'm visualizing where I think the ball's gonna go when I'm seeing it. Then, like I said, once I get behind the ball, I'll plum it one more time to see which way I think it's gonna break, and then right before I walk towards the ball, I'll really see the ball. It's almost like I'm putting to a picture. I just see my putter head coming back and see it striking the ball; see it rolling on the line that I want, and turning in." (Participant #1)

As many of the participants expressed, putting requires a very narrow focus which may explain the specific detail they gave when talking about their putting routine.

Summary

Most of the athletes in this investigation had similar routines that were relatively brief and simplistic. Chipping and putting routines seemed to have a more definite structure than that of a full swing shot which was highly flexible.

"I think the main thing for me with putting and short game shots, little shots, where I'm trying to be more exact, I think having a simple, quick routine for me helps keep my body relaxed and keeps everything kinda flowing and moving." (Participant #1)

Many of the participants enjoyed describing, discussing and analyzing their routines with the researcher. Several of the participants enjoyed reflecting on the past and realizing how important their preshot routines have been to their performance. One participant

even expressed how his putting was better than his full swing shots and observed that a possible reason for this was that unlike his putting, he had no definite routine for his full swing. He contemplated working on establishing a routine for his full swing shots.

"I can't remember not having a routine putting. But like I said, with my long stuff I guess I don't really have a routine, I have a general routine with how I stand behind the ball and visualize and things like that, but not exactly a number of looks or waggles, which maybe I should try to do." (Participant #1)

Based on the results of this study it appears that having a structured routine for focus and comfort during performance can be paramount for peak performance.

Discussion

The majority of research on preperformance routines has used quantitative methods; therefore, the present qualitative study allowed for a unique, rich description of the lived experiences of preshot routines described by professional golfers. Several themes and subthemes emerged converge with previous research. Therefore, the purpose of this section is to incorporate the results of this study with previous research. Each segment begins with a summary of the current study and proceeds to a discussion of linked research. These sections are followed by conclusions and suggestions for future research among professional golfers.

Maintaining Focus

Focus was a major theme described by participants in this study. In fact, most of the participants in the study described the role that focus has on their performance.

Research has shown that implementing routines can help focus attention, reduce anxiety, eliminate distractions, enhance confidence, and help with mental preparation for a future performance (Czech, Ploszay & Burke, 2004) The participants knew they needed to control their focus by attending to all relevant information and this was achieved by adhering to their preshot routine. Many athletes have been able to reach an ideal performance state by concentrating on implementing routines (Schmid & Pepper, 1998). In turn, concentration has also been enhanced through the use of preshot routines in sports like golf, bowling, basketball, tennis, and skiing (Cohn, Rotella, & Lloyd, 1990).

Target.

Researchers suggest that a closed skill action like the golf swing is an action in which preshot routines could be beneficial to performance outcomes (Crews & Boutcher, 1986). Consistent with this suggestion, the participants described many instances where focusing on a target was very important for desired swing. Many times the participants tried to pick out as specific a target as possible in order to reduce the margin of error in their shot. This action coincides with many sport psychology consultants teachings of a narrow attentional focus needed before a shot (Cohen, 2005, Rotella, 2002). Since golf and especially putting need such a narrow focus, having a preshot routine may help to keep golfers at this level of focus.

Internal Visualization.

Mental rehearsal/visualization has been shown to improve athletic performance for ski racers, basketball players, gymnasts, dart throwers, and many other athletes (Epstein, 1980). "Prior to every shot, your preshot routine sets the stage for you to make your best swing. The consistency of it is key.

When you have a simple visualization strategy to center and focus your mind you will play far better golf" (Pearse, 2006, p.1). Many of the golfers in the current study tried to implement internal visualization into their routine, but most were not very advanced or had not practiced it. This may be because they do not fully understand the power of internal visualization and how they can manipulate it for various aspects of performance.

The professional golfers in this study utilized visualization in order to reach their optimal level. In many instances it seemed that the participants used visualization in order to see a shot prior to it happening and view the path the ball should travel along. They may visualize their stance, the feel of the ground, the type of swing needed, or even the flight of the ball. Although this was the case, none of the participants expressed working to improve their visualization skills. Consultants should take note of this and realize that increasing imagery vividness and controllability can be an avenue that may enhance performance at this level.

Consistency.

order to maintain consistency. professionals try to master skill automaticity (Cohn, 1990). Preshot routines in this investigation may have promoted consistency within participants' the performance. Participants felt that a preshot routine helped them stay in an optimal concentration state and/or bring them back to an optimal concentration state if they lost focus. It appeared that the more they were in their optimal concentration zone, the more consistent they became with their performance.

Participants expressed that time can be a golfer's worst enemy when too much analysis takes place during the warm up.

Preshot routines can fill the time where warm-up decrement can detract from performance. The set hypothesis states that warm-up decrement can debilitate performance (Cohn, 1991). Filling any spare time with a routine may keep participants focused, which breeds consistency in performance (Cohn, 1991). A preshot routine is good for eliminating extraneous thoughts prior to hitting a golf shot and "grounding" a player, getting them to focus more exclusively on the shot at hand (Blakemore, 2007). Combining focus and visualization to maintain consistency may help the golfer achieve their optimal skill level during performance. They may also feel more relaxed and comfortable having a routine that keeps behavior consistent throughout their performance.

Physical Aspects of the Routine

This theme consisted of subthemes in which the participants often described the physical experience of their routine.

Position.

The participants would describe where they would stand during certain parts of their preshot routine. Moreover, a majority of the participants discussed how they stood behind the ball in order to focus on their shot and line up to a target. Some of the participants also described taking practice swings behind the ball or beside the ball. This small detail, which was seldom compromised, seemed to be of great importance to each of the participant's descriptions. Even when a distraction occurred, participants took a step back behind the ball and focused on the target again.

Practice swings.

Many of the participants used practice swings in order to experience a preshot "feeling" of being comfortable as opposed to

doing a certain number of swings. Golfers can use a routine to remain on a normal pace; taking too long or too little time can hurt performance (Gallacher, 1986). The participants may have felt that longer type shots were more about the feel of the shot. A longer shot could easily be missed by improper technique; thus practice swings were used to bring a sense of comfort with their technique. This subtheme may have come about because participants expressed that the amount of practice swings could vary, especially for full swing shots and chipping. A reoccurring description was the notion of a "feeling" in their swing before a shot.

Consistency of use.

Some of the participants in this study discussed certain reoccurring actions experienced during performance. One of the more important aspects discussed was the utilization of the same preshot routine every time. A rationale for the reoccurrence phenomenon is again comfort. The golfers this study did not want inconsistencies in their routine. Thus, by doing the same thing every time, they were more able to feel comfortable. Another description was keeping the "routine simple and to the point." Blakemore (2007) stated that "my own experience is that developing a preshot routine helped me improve noticeably as a player. It especially helped me with first tee jitters when I was younger. My pre-shot routine is very simple." The participants seem to not want anything which mentally distracted them from their performance. A "simple" routine may have kept the participants from any debilitative over analysis.

External Visualization.

The participants described specific things they would need to see during their preshot routine in order to hit their shot to the best of

their ability. One of the golfers expressed that he walked around the ball in order to see all the extra angles that he could. By seeing all these angles he may have felt like he would perform the shot better. Many of the participants really focused on seeing the ball and all of its detail. Pearse (2006) suggests to literally "see" the ball flight or pace of the putt as it enters the hole. Lastly, the participants tried to see the positive aspects of their shot, for example instead of seeing trees or water to the left, they wanted to see only the positive targets. This theme may have come about because golfers find it important to focus on relevant cues during performance. They seem to realize that they should focus on the positive aspects as opposed to any negative visuals.

Shot Type

Full Swing Shots.

It seemed as though for full swing shots the participants' routines were less succinct and organized. Some of the participants even felt like they did not have much of a routine when it came to full swing shots. The rationale may be that for full swing shots, the margin of error was larger as opposed to other types of shots. Since the participants shot did not need to be quite as accurate, they may have kept their preshot routine more general. Some of the participants even expressed having a routine that promoted a comfortable feeling.

Chipping.

Chipping is more of a controlled swing where the participants may stop their swing at anytime. As previously discussed, many of the participants described increasing the amount of practice swings for optimal performance in chipping. The rationale for this action may be that the swing for chipping is much more controlled. Since more control is needed, participants may have felt the need to take more practice

swings until they are comfortable with that specific shot.

Putting.

Participants seemed to utilize a more detailed preshot routine for putting Rotella and Cullen, (2001) support the notion of how putting preshot routines enhance concentration and relaxation which can facilitate performance.

Research shows that golfers utilize preputt routines in order to keep performance consistent during such a concentrated skill (Cohn, Rotella, & Lloyd, 1990). A rationale may be that putting requires a more narrow focus. Having a routine during putting may promote a higher level of concentration as opposed to having a more general routine which could bring about less concentration. Specifically for putting, golfers need to focus their attention on relevant information, stop negative thoughts, keep from thinking about their well-learned skill, and get in the right physical and mental state of mind (Cohn, 1990). They can empty their minds by following their preshot routine diligently as well as believing in themselves in order to improve putting (Rotella & Cullen, 2001).

In summary, Gallacher (1986) states that a routine, "is a way of giving your conscious mind something to think about and leaving it to your subconscious mind to hit the ball" (p. 42). Research suggests preperformance routines have shown to help athletes focus attention, reduce anxiety, eliminate distractions, enhance confidence, and help with mental preparation for a future performance (Czech, Ploszay, & Burke, 2004). As cited in Czech et al. (2004), closed skill sports like: free throw shooting basketball, serving in tennis volleyball, and punting and place kicking in football are all areas where preperformance routines can be implemented to improve an athlete's performance (Wrisberg & Pein, 1992). During performance, athletes want to feel they have made the right decisions and a routine can promote positive decision making which will in turn increase performance (Gallacher, 1986).

Based on this knowledge, this study was conducted in order to help other golfers as well as sport psychology consultants have the opportunity to learn how professional golfers utilize a preshot routine during performance. understanding Byprofessionals do, other golfers may have the opportunity to improve their performance. Also, few studies have examined professional golfers and their experience with preshot routines. In order to understand this elite group, it was felt that descriptive interviews would gain the most information.

Conclusions

Based on the results of this study, the following conclusions can be drawn:

- Professional golfers in this investigation felt that a preshot routine should be utilized before every shot.
- Professional golfers in this investigation felt that a preshot routine keeps their minds occupied so that irrelevant thoughts did not interfere with their performance.
- Professional golfers in this investigation felt that preshot routines for putting need to be more detailed and specific to achieve a more narrow focus.
- Professional golfers in this investigation did not have the exact same routines but were very similar in content.
- Professional golfers in this investigation utilized a preshot routine to block distractions and focus on relevant information.

- Professional golfers in this investigation utilized a preshot routine in order to gain a comfortable feeling before every shot.
- Professional golfers in this investigation utilized a preshot routine in order to implement visualization.
- Professional golfers in this investigation utilized a preshot routine in order to maintain consistency in performance.

Recommendations for Coaches, Sport Psychology or Focus Enhancement Consultants, and Sport Researchers

Based on the results of this study, the following recommendations for coaches, sport psychology or focus enhancement consultants, and sport researchers are suggested.

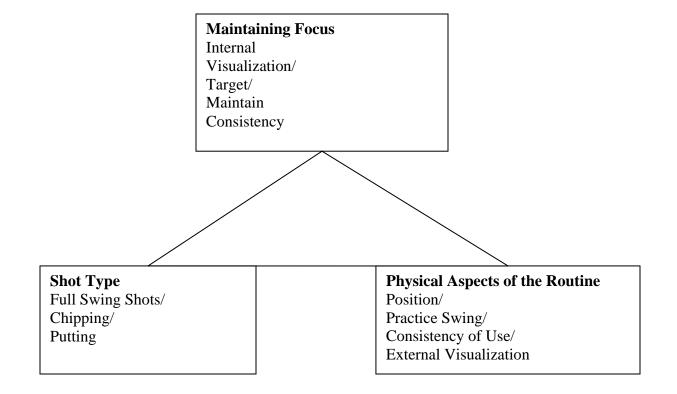
- 1) While teaching the technical aspects of golf, coaches can also include teaching preshot routine skills during practice.
- 2) Coaches can have their golfers describe their preshot routine to enhance their performance awareness.
- 3) Sport Psychology or Focus Enhancement consultants can enhance a golfer's preshot routine by improving visualization skills through training.
- 4) Sport Psychology or Focus Enhancement consultants can help golfers come up with cue words in order to remind themselves to use their preshot routine before every shot.
- 5) Sport Psychology or Focus Enhancement consultants can encourage coaches to work with their players on the detail of each individual's preshot routine.

6) Further research should be conducted on preshot routines using a qualitative method for various levels of golfers.

Table 1
Description of Participants

	Gender	Sport	Race	Athletic Level	Turned Pro	Affiliation Tour
1	Male	Golf	Caucasian	Professional	2004	Hooters Tour
2	Male	Golf	Caucasian	Professional	2003	PGA Tour
3	Male	Golf	Caucasian	Professional	2001	Hooters Tour
4	Male	Golf	Caucasian	Professional	2002	PGA Tour
5	Male	Golf	Caucasian	Professional	2001	Nationwide
6	Male	Golf	Caucasian	Professional	1975	Senior PGA
7	Male	Golf	Caucasian	Professional	2000	PGA Tour
8	Male	Golf	Caucasian	Professional	2002	PGA Tour

Figure 1
Themes Describing Professional Golfers Experience of Utilizing a Preshot Routine.



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