I Got a Feeling: Exploring Precognitions in Elite Golfers

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Abstract

The purpose of this study was to examine the subjective experience of a form of intuition called precognition (the ability to sense the future), purported by four elite golfers playing on the PGA European Golf Tour. The participants were selected for this study on the basis of their reported experiences of precognitions during their playing careers. An open-ended, semi-structured phenomenological interview (Kvale, 1983) was used to gain a description of their experiences. A Thematic analysis of transcripts describing their experiences (Braun & Clarke, 2006) resulted in the identification of five major themes associated with intuition in this context. These were 'clutch situations,' emotionally arousing stimuli,' 'pre-feeling,' 'self-talk,' and 'prospective imagery'. The results of this study suggest precognitions manifest in clutch situations and pre-empt performance excellence. The findings could provide valuable insight for researchers and practitioners interested in the phenomena of intuition and its role in optimizing performance.

Keywords: precognitions, intuition, clutch situations, emotionally arousing stimuli, pre-feeling, self-talk, prospective imagery.

I Got a Feeling

Leading philosophers such as Pythagoras, Plato, Aristotle, Plotinus, Augustine, Aquinas, Kant, Bergson have made intuition a key part of their systems of thought. Carl Jung (1921), regarded intuition as one of the four essential functions of the human mind (Sensing, Thinking, Feeling and Intuition), while Fuller (1970), reasoned intuition to be a core skill for human evolution and central to breakthroughs in science, art, industry, and all human endeavors. Intuition is also seen as a vital tool for our individual and collective positive evolution (e.g., Noddings & Shore, 1984).

Intuition can be defined as an ability to understand something instinctively, without the need for conscious reasoning. It occurs when we directly perceive information outside the range of the usual five senses (Schultz, 1999), and is therefore often referred to as our sixth sense (see Khaled & Zahran, 2011). Its close association with psi phenomena and paranormal experiences have meant intuition has often been overlooked by sport psychology as a construct of interest.

Intuition refers to extrasensory information perceived by telepathy, clairvoyance, or precognition (Radin, 1997). Telepathy is information exchanged between two or more minds, without the use of the ordinary senses. Clairvoyance is information received from a distance, beyond the reach of the ordinary senses, it is derived from the French term for “clear seeing”. Precognition is information perceived about future events, where the information could not be inferred by ordinary means. Variations include “premonition”, a foreboding of an unfavorable future event, and “presentiment”, a ‘pre-feeling,’ and sensing of the future (Radin, 1997).

Some forms of intuition such as precognition ‘the ability to sense the future' appear to play a more central role in sport. Indeed, testimony’s given by elite athletes suggest precognitions are linked to episodes of performance excellence. To illustrate, in private

conversations with the authors, professional golfers often report they get a strong feeling they are going to win an event before it happens. Moreover, during tournaments, some, but not all golfers, report they become consciously aware that an improbable putt or golf shot is about to go into the hole before it transpires.

While, of course, recollection of such events may be clouded by outcomes, or attributed to confidence, talks with golfers about these incidents suggest predictions of this kind often occur when the golfer is not playing well and has low self-confidence. For example, in a private conversation to the authors, a Ryder cup star reported when he was playing in the Scottish Open, he had to make a 45-foot putt across the sloping 18th green at Loch Lomond to 'make the cut'. He said he was not playing well and had lost his confidence because his swing was so poor. He also had missed several cuts in a row, however, on this occasion, he knew he was going to make the improbable shot because he had a strange feeling and a vision of it going in the hole before it happened.

Perhaps the most compelling evidence for precognition effects in elite golfers comes from an experiment that was not designed to test a precognition effect. In their study examining ‘confidence putts', Crews, Lutz, Nilsson, and Marriott (1999) found their subjects (Swedish Golfers from the LPGA tour) were able to inform the researchers which putts were going into the hole before they hit the ball. Interestingly, these so-called "confidence putts” had a 60% success rate. This study suggests some golfers may unconsciously respond to information beyond the reach of their normal senses, it also suggests this behavior occurs within elite golf populations.

Although the concept of precognition runs counter to accepted notions of causality and conflicts with mechanistic views of current scientific theories about optimal performance in sport, there is a historical precedent to support the notion that precognition at a conscious and unconscious level are real events. For example, in a meta-analysis of 309 forced-choice

experiments spanning over 50 years from 1935 to 1987, the researchers Honorton and Ferrari (1989) found significant precognition effects in 92 (30%) of the cases they analyzed. This study is significant because it involved examining data from 50.000 subjects and nearly 2 million experimental trials.

In his book 'Entangled Mind,' Radin (2006) also cites numerous 'precognition' studies. For example, Radin (1997; 2006) found that when individuals are about to be exposed to emotionally arousing visual stimuli (e.g., violent or erotic pictures), they were able to detect the stimuli at an unconscious level before the stimuli were presented. The unconscious physiological measures chosen for his study were heart rate, blood volume, and electrodermal activity. In a similar study that used EEG to measure emotional responses, Bierman and Scholte (2002) discovered that when erotic images are presented to subjects on a computer screen a strong emotional response recorded by EEG measurements occurred a few seconds before the picture appeared and even before the computer had selected to display the picture.

In another study involving more than 1,000 participants, Bem (2011) found that when subjects were presented with randomly intermixed erotic and non-erotic pictures, they were able to identify the position of the hidden erotic picture significantly more often than chance (50%). Similarly, when Bem (2011) adapted a simple priming experiment (he called "retroactive priming"), where subjects were asked to judge the emotional valence of a picture before it was presented to them, Bem (2011) once again found his subjects were able to make a correct judgment, significantly more often than chance.

Other experiments by Bem (2011) involving precognitive avoidance of negative stimuli, retroactive habituation, and retroactive facilitation of recall yielded similar results. In sum, Bem's (2011) 9 experiments, generated many statistically significant results for a precognition effect (retroactive influence by time- reversing). Taken together these findings

indicate that the subjects participating in these studies somehow knew in advance which picture was going to elicit a strong emotional response.

The research presented here suggests precognitions are likely to occur in situations that are emotionally arousing. Based on this assumption we may expect a precognition effect in sport to manifest when athletes are competing in important events and/or engaged in highly arousing moments such as clutch situations described by Hibbs (2010). Clutch situations are defined by Hibbs (2010) as competitive pressure situations where the success or failure of the athlete to perform optimally has a significant impact on the outcome of the contest. It is possible, precognitions may be experienced by athletes exposed to these situations. i.e. when they try to 'make something happen'.

In spite of the evidence that shows precognitions are real experiences, there is scant knowledge on precognitions in sport. The purpose of the present article is to illuminate the phenomenon by gathering qualitative data from elite golfers on their precognition experiences.

Method

Participants

In this study, we focused on the experience of four male golfers competing on the PGA European Tour. All of the participants had recorded tournament wins and one competed in the successful 2014 European Ryder Cup Team. The ages of the participants ranged from 25 to 40 (M = 32 years of age) and all consented voluntarily to participate in the study. A purposeful sampling technique was used to choose the participants for this study. This technique allowed the researcher to select participants that had reported experiences of precognitions during their playing careers.

Procedure

Ethical approval for the study was granted by the University ethics committee. All participants provided informed consent after the researcher had explained the general purpose of the study. They then completed a questionnaire requesting socio-demographic information. The researcher then made sure the participants were familiar with the term precognition by asking the participants to describe one of their experiences. When the researcher was satisfied with their descriptions the primary researcher then conducted an open-ended semi-structured Phenomenological interview. All of the interviews took place in a private setting to ensure anonymity. The interviews took place in the Hotel rooms of the participants after a European Tour event. The primary researcher was their consultant psychologist who had many years (2-8) of experience working with the participants. The researcher did not regard the interviews as a conflict of interest because the participants were familiar with the researcher gathering performance data with an open-ended semi-structured phenomenological interview technique.

Open-ended Phenomenological interviews were used in this study to allow the researcher to "reveal the real essence of human experience" (Hatch, 2002). The interviews lasted approximately 40 minutes. The interview consisted of one open-ended 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 disclose their experiences of precognitions. The following statement was posed to each participant:

"In your professional career can you tell me about your experiences of precognitions"

The interview continued with probing questions to gain a full understanding of the participants' experiences (Patton, 2002). Some of the probing questions included: Can you remember other occasions when this occurred? How often does this happen? What kind of thoughts and feelings did you experience? When was the last time you experienced precognition?

Data Analysis

After the interviews, the data was transcribed by the researcher. The transcripts were checked for errors by the researcher who listened to the audiotape version of the interview and read the transcript. The researcher read the transcripts more than five times to familiarize themselves with the data. During the interviews, some of the conversations involved information that is not relevant to the experience of the phenomenon being studied (Patton, 2002). Consequently, in the current study irrelevant, repetitive, and overlapping data were eliminated from the analysis. Punctuation and enhancing readability were also added or taken out when needed. The transcribed interviews were then authenticated by each participant. All of the participants confirmed that the transcript accurately captured their experience. confirmed that the text accurately captured their experience.

An inductive procedure based on the recommendation of Braun and Clarke (2006) was chosen to analyze the data. More specifically, the data was analyzed using an iterative step-by-step thematic analysis. Following Braun and Clarke's (2006) phenomenological inquiry the analysis consisted of the following procedural phases:

1. In the first phase, of this approach, the narratives from the participants were read several times by the researcher to familiarise themselves with the information. A list of ideas about what is interesting in the data was then generated. The list of ideas was based on the shared interest of the researchers (first and second authors) similarities and differences were highlighted.

2. In the second phase, the researcher gave the data a code based on the semantic or latent features of the data. This involves organizing the data into meaningful groups (Tuckett, 2005). The groups that were chosen were based on the interest of the two analysts and their knowledge of the research literature. The Coding of the data was carried systematically across the entire data set, collating data relevant to each code. All actual data extracts were coded and then collated together within each code.

3. In the third phase, the researcher sorted the different codes into potential themes and collating all the relevant coded data extracts within the identified themes.

4. In the fourth phase, the researcher independently checked if the themes work with the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic ‘map' of the analysis.

5. In the fifth phase, the researcher defined and further refined the thematic map generated from the fourth phase. At this stage, the researcher generated clear definitions and names for each theme. The themes represented the precognition experience and the factors perceived to facilitate its occurrence.

The accuracy and validity of the analysis were tested using an investigator triangulation procedure (Creswell, 2013). The procedure involved the use of multiple expert observers (three academics in the department of psychology) who were allowed to elaborate, affirm or disagree, with the codes and themes produced by the researchers. Any disagreements interpretation of categorization of codes and themes were discussed until a consensus was reached. Although a small number of discrepancies emerged from this process, following discussions within the group it was felt modifications were not required.

Results and Discussion

The thematic analyses revealed five comprehensive constituent themes underlying precognition experiences. These were clutch situations, emotional thoughts, a “pre-feeling”, self-talk, and prospective imagery. The themes are discussed concerning the relevant knowledge base.

Theme #1: Clutch situation

The first theme that emerged in the data was related to clutch situations described by Hibbs (2010). More specifically, the participants report they experience precognitions when they become ‘aware’ they are in a pressure situation where success or failure to perform optimally has a significant impact on the outcome of the contest. Additionally, all of the quotes reported by the participants suggest precognitions pre-empt episodes of performance excellence. This finding suggests precognitions are linked to optimal performance and its associated psychological states.

I get precognition when I have to make the chip shot or putt. (Participant #1)

I had to birdie the last hole to make the cut, (Participant #1)

It happens more often when I have to make an impossible shot or putt. (Participant #2)

When I have to make a putt to keep my scores going. (Participant #2)

It most often happens when I am forced to make a great shot. (Participant #3)

It happens when I have no choice in the shot I can hit. (Participant #4)

Theme #2: Emotionally arousing stimuli

The second theme that emerged in the data was related to emotional thoughts. The participant's responses suggest that the precognition effect is likely to occur when the situation/competition is highly significant and emotionally arousing. This supports the proposition presented by researchers such as Bem (2011) and Radin, (2006a) who cite studies that show a precognition effect when individuals are about to be exposed to emotionally arousing stimuli. The following quotes illustrate the elevated emotional states (e.g. scared, stressed, upset, frustrated) which are associated with experiences of precognitions:

"When I'm frustrated it happens the most." (participant #1)

"It often occurs when I get scared about missing the cut." (Participant #2)

"It happens when I am under stress." (Participant #3)

" I experience precognition when I am upset with my performance." (Participant #4)

Theme #3: Pre-feeling

The third theme that emerged from the data was that all golfers had a feeling that something is about to happen. More specifically, the golfers noted that they had a strong feeling that the putt or golf shot was about to go into the hole before it happened. These reports show our golfers had hunches about future events that could not have been inferred from the situation or environmental conditions. These "pre-feeling" are forms of intuition referred to by Radin (2009) as precognitions.

‘It's a weird feeling I get before it happens” (Participant #1)

“I get a feeling and a visual of the shot before I hit it." (Participant #2)

“I get a feeling I will do something great.” (Participant #3)

“I experience this sort of feeling”…“It’s hard to describe.” (Participant #4)

Theme #4: Self-talk

The fourth theme that emerged in the data was the use of self-talk. More specifically three of the participants were engaged in self-talk before their precognition experience. All of the quotes suggest self-talk is being used to direct attention and to regulate effort and emotions. More specifically, participant 3 is very process driven and instructional, participant 1 and 2 appear to be using self-talk to manage their emotions. Self-talk and its effects on directing attention and enhancing emotions are well documented in the sport psychology literature (see Landin, 1994; and Hatzigeorgiadis, Theodorakis & Zourbanos, 2004).

“I tell myself this is going in.” (Participant #1)

“I focus and then say to myself just make it.” (Participant #2)

“I think it is linked to images and what I say to myself.” (Participant #3)

“I notice I am telling myself what I need to do.” (Participant #4)

Theme #5: Prospective Imagery

The fifth theme that emerged in the data was the significance of imagery. More specifically two of the participants were aware of a visual image of the putt/shot before it happens. The visual images reported in this study did not originate from the participants' memory. Instead, the image occurred spontaneously as an automatic thought. Images that occur spontaneously and provide information about the future are called prospective imagery (see Deeprose & Holmes, 2010).

"I often see the shot before it happens." (Participant #1)

"I can see the ball going in before it does." (Participant #1)

“I get a feeling and a visual of the shot before I hit it." (Participant #2)

“I think it is linked to images and what I say to myself.” (Participant #3)

“I see what I need to do before it happens, then it happens.” (Participant #4)

Concluding Remarks

The current study set out to explore the precognition experiences of four elite golfers. The results of the phenomenological interviews and qualitative thematic analysis appear to suggest precognitions are real events experienced by elite golfers. Our study also shows precognitions appear to manifest from the unconscious like an automatic thought and they pre-empt episodes of performance excellence. Interestingly, the golfers did not experience precognition effects that were negative such as missed putts or shots.

More specifically, our findings suggest precognitions transpire when elite golfers have to make a putt or a shot in an emotionally arousing situation, such as when the consequences of failure are high. In other words, precognitions occur when a golfer is exposed to a clutch situation similar to those described by Hibbs (2010). According to Swann, Crust, Jackman, Vella, Allen, & Keegan, (2017) athletes who can perform in clutch situations enter an altered state of consciousness called a clutch state. Clutch states have a strong association with optimal performance and a mental state called flow (see Swann et al. 2017). Our study shows precognitions occur in clutch situations and pre-empt an optimal performance. The fact precognitions occur during clutch situations, i.e. when the golfer has to 'make something happen', suggests it is at least partially associated with clutch performance and clutch states. Future research exploring this proposition is required.

Self-talk also appears to be coupled with the precognition effect. In our study, self-talk appears to help the athlete's 'psych'' themselves up, control arousal, direct effort and focus their attention on the task in hand. In other words' in this study self-talk has both a motivational and instructional function (see Hardy, Hall & Hardy, 2005; Van Raalte, Vincent & Brewer, 2016). The presence of self-talk during precognition experiences suggests attention, intention and emotions appear to be important mediators of the precognition effect. Experiments reported by Radin (2011) and Bem (2011) support this view.

Interestingly, during the time frame of the pre-shot routine, the golfers reported, a positive prospective image (future-orientated image) of the ball going into the hole and a pre-feeling of something improbable is about to happen. In our study, both prospective imagery and pre-feelings (Gut Feelings) were involuntary in nature, an experience that comes to mind unbidden.

Prospective imagery may occur for several reasons. First, imagery has been demonstrated to have a stronger impact on emotion than verbal thought (Holmes, Lang & Shah, 2009; Holmes & Mathews, 2005; Holmes, Mathews, Mackintosh & Dalgleish, 2008) prospective imagery may, therefore, help the golfers regulate their emotions. Second, prospective imagery is causal in determining future behavior – imagining oneself completing a future event can lead to a significantly greater likelihood of this event being completed (Libby, Shaeffer, Eibach & Slemmer, 2007). Future research supporting these propositions is required.

The pre-feeling of something improbable is about to happen is reported by all of the participants in this study. Researchers investigating this form of precognition has suggested ‘pre-feelings’ are strongly linked to the to our anticipatory systems of motor control (see: Radin and Borgos, 2009). Anticipation is one of the principal characteristics of human performance (Aglioti, Cesari, Romani, & Urgesi, 2008). Indeed, the ability to anticipate a future event separates the good athletes from the elite. In basketball, for example, anticipation in the form of a pre-feeling is needed to predict when it is the right time to ‘reach and jump' to block the opponent's shot. Anticipation in the form of a pre-feelings also allows basketball athletes to hit and catch objects moving faster than they can see. This infers athletes need a pre-feeling to predict ‘what will happen next' to know, "what to do next'.

It is clear, elite athletes will show exceptional anticipatory abilities (Aglioti, Cesari, Romani, & Urgesi, 2008). Recognizing, the full scope of these abilities is essential for sports psychologists to gain a more complete understanding of optimal performance in sport. However, sports psychologists have rarely examined anticipation and its association with intuition in the form of pre-feelings. Scientific investigations are therefore needed. Moreover, research is required to understand where pre-feelings come from. Are pre-feelings anticipatory responses that originate from our memory or do they involve genuine influences

from the future? The possibility that pre-feelings derive from information that comes from the future appears to many as absurd. However, discoveries in quantum physics and human consciousness suggests this proposition may be possible (see Meijer & Geesink, 2017; Penrose & Hameroff, 2011; Smythies, 2009).

It could be argued many of the findings of this study are an artifact of high levels of self-confidence. However, it should be noted, in our study, self-confidence was not reported as a factor associated with the precognition experience. Instead, emotions described as arousal, threat, fear of failure and stress appear to be coupled with this experience. Our findings are notably similar to those reported by Hartman, and Secrist (1991) who found jet fighters under the stress of combat were able to predict a future event by responding to stimuli with speeds beyond normal human potential.

In spite of our findings, it should be noted, in this study, no attempt was made to independently measure the participants self-confidence. However, it is not unreasonable to expect that future studies examining precognitions in elite athletes may find self-confidence to have a facilitating effect. Indeed, Crews and her colleagues (1999) demonstrated elite golfers can predict the future (the result of a successful putt) when they are experiencing high levels of self-confidence. To eliminate the possibility of attributing the results of our study to self-confidence or just good judgement, experiments designed to control these variables would be a useful avenue to pursue. Moreover, given the strong link between optimal performance and other variables associated with personality such as adaptive perfectionism, dispositional hope, and optimism (see Gould, Dieffenbach & Moffatt, 2002), more research will be required to confirm, replicate, and extend our findings.

One of the major contributions of our study is that it sheds a different light on high-performance golfers. By providing insights into precognitions from a sample of elite golfers who play full time on the European Tour the findings give this study some credibility.

Although the sample size in the present study is small the phenomenological interviews and the thematic analysis as described by Braun and Clarke (2006) provides a flexible and useful research tool, which has provided a rich and detailed, yet complex, account of the precognition data. This form of phenomenological inquiry is very intensive and time-consuming, which makes an analysis of large samples impractical. Nevertheless, our decision to restrict the analysis to the narratives of players on the European Golf tour means our sample might suffer from self-selection bias.

The purposive sampling technique employed also increased the possibility, of participant and experimenter bias. Indeed, neither the participants nor the experimenter was blind to the purpose of the study and so, experimenter expectations or the demand characteristics of the experiment had the potential to influence the results. It should also be noted that because the data was collected retrospectively the possibility of recall bias was also increased.

In spite of these shortcomings, the overall findings of this study are interesting because they support the idea that elite golfers may unconsciously respond to information beyond the reach of their normal senses. This appears to violate the principle of causality and question our understanding of probability theory and human potential. However, these findings are only hard to explain if you exclusively endorse the traditional mechanistic, Newtonian model of physical reality, which has been questioned by a large number of researchers exploring quantum mechanics (Cox & Forshaw, 2011), chaos theory (Boeing, 2015), and non-linear dynamics (Boeing, 2016). Researchers in these academic fields have challenged traditional views of cause and effect processes. Indeed, we now know that the world is not simply a deterministic mechanism; foundational equations of quantum physics not only support the common-sense notion that time flows forwards, but it also highlights the possibility that time may also go backward. In other words, in quantum theory, the future and

the past may affect the present (see Shoup, 2011). A question now remains where does the information that allows us to make predictions about the future come from? Is it through innate Psi abilities that enable us to see and/or feel the future, or is it the result of thousands of hours of deliberate practice, years of experience, and the use of appropriate cognitive processes?

The results of this study suggest sports psychologists should consider developing techniques that train and develop the intuitive abilities of their clients. The link between intuition and the unconscious mind made by researchers such as Pandarakalam, (2018) imply interventions that are allied with the unconscious such as hypnosis and guided imagery may be used to develop intuitive abilities that are associated with sport. Hypnotic interventions, that involve making hypnotic suggestions that direct the unconscious mind towards making decisions based on 'gut feelings' could be a fruitful approach to training elite athletes.

To summarize, the results of this study suggest precognitions are real events which manifest in clutch situations and pre-empt performance excellence. The precognitions are accompanied with positive self-talk, prospective imagery, and they appear to be associated with situations where an elevated emotional response would likely be invoked. This link between precognitions (intuition) and optimal performance is an emerging field in sport psychology and requires greater attention as a legitimate area of investigation. The source of intuitive information needs to be explained. Indeed, if it is not coming from our senses, where is it coming from? Quantum knowledge may hold the key to a plausible explanation. It is the researchers hope that this study will inspire other researchers to investigate the role of intuition in sport and help to explain the mechanisms that underlay sometimes improbable peak performance events in sport.

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Table 1. Thematic analysis by authors. Themes and related coded data.

Theme	Coded data
Clutch Situations	"I get precognition when I have to make the chip shot or putt." (Participant #1) "I had to birdie the last hole to make the cut, (Participant #1) "It happens more often when I have to make an impossible shot or putt." (Participant #2) "When I have to make a putt to keep my scores going." (Participant #2) "It most often happens when I am forced to make a great shot." (Participant #3) "It happens when I have no choice in the shot I can hit." (Participant #4)
Emotionally Arousing Stimuli	"When I'm frustrated it happens the most." (participant #1) "It often occurs when I get scared about missing the cut." (Participant #2) "It happens when I am under stress." (Participant #3) " I experience precognition when I am upset with my performance." (Participant #4)

Pre-feeling	‘It's a weird feeling I get before it happens.” (Participant #1) “I get a feeling and a visual of the shot before I hit it." (Participant #2) “I get a feeling I will do something great.” (Participant #3) “I experience this sort of feeling”…“It’s hard to describe.” (Participant #4)
Self-talk	“I tell myself this is going in.” (Participant #1) “I focus and then say to myself just make it.” (Participant #2) “I think it is linked to images and what I say to myself.” (Participant #3) “I notice I am telling myself what I need to do.” (Participant #4)
Prospective Imagery	"I often see the shot before it happens." (Participant #1) "I can see the ball going in before it does." (Participant #1) “I get a feeling and a visual of the shot before I hit it." (Participant #2) “I think it is linked to images and what I say to myself.” (Participant #3) “I see what I need to do before it happens, then it happens.” (Participant #4)