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Golfers' Preperformance States of Mind and Emotion During Tournament Play

Susan A. Malo

University of Ottawa

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TABLE OF CONTENTS

ABSTRACT

Positive states of mind and emotion are essential to skilled golf performance, yet the substance of these desirable capacities has received minimal attention. The aim of the present study, therefore, was to investigate the preperformance thoughts of expert golfers during their play in a tournament round, in order to determine the states of mind and emotion that these golfers experienced, and to examine the relationship of this mental and emotional activity to subsequent golf performance. Each of seven male amateur golfers who play Quebec Golf Association and Royal Canadian Golf Association events (average handicap 0), was videotaped on a separate tournament day. Following the round, each participant was interviewed, whereby he was asked to recall what he was attempting to do, what he was thinking and feeling. The videotape was then played back to stimulate further input. Inductive analyses of interview transcripts disclosed that the preperformance thoughts expressed by the participants fell into two main dimensions: Thoughts of a positive nature were associated with successful shot outcomes, and described effective mental preparation skills, effective technical/tactical strategies, and positive feeling states. Thoughts with clearly negative overtones were associated with unsuccessful outcomes, and pertained to ineffective mental preparation, technical/tactical weaknesses, and negative feeling states. The stimulated recall interviews were successful in garnering the content of the participants' thoughts, and was a methodological strategy which had not yet been used in golf. The participants found the process helpful in that it enhanced their awareness about many facets of their play, which frequently translated into improved play in subsequent rounds. The information gleaned from this study will likely aid other golfers who wish to improve their attentional skills, and the procedure used is an innovative manner in which to initiate consulting interactions.

GOLFERS' PREPERFORMANCE STATES OF MIND AND EMOTION DURING TOURNAMENT PLAY

In school we are told to "Pay attention!". In pursuing a sport or physical skill, our coaches and instructors tell us to "Concentrate!" on what we are doing. All our lives, mentors urge us to employ this mental process as we attempt to learn a new skill or execute a well developed one. Yet we remain confused as to what that directive actually entails. We only know that concentration is something we need, and we attribute performance decrements to lapses in it or its total absence (Abernethy, 1993).

There has been little agreement as to how to define concentration (Abernethy, 1993). Various terms have been used to signify the concept, such as attention:

> Everyone knows what attention is. It is the taking possession by the mind, in clear and vivid form, of one out of what seem several simultaneously possible objects or trains of thought. Focalization, concentration, of consciousness are of its essence. It implies withdrawal from some things in order to deal effectively with others. (James, 1890, pp. 403-404)

Orlick (1990) referred to the concept as focus, and defined it as "the uninterrupted connection between two things" (p. 15). Thus, for the purposes of this paper, attention or attentional control, focus, and concentration are terms which have been understood to describe the same mental process. As such, they have been used interchangeably. It is also understood herein that certain states of mind and emotion characterize concentration, and are reflected in the thoughts one has prior to the execution of a skill.

Several leaders in the field of performance enhancement (Abernethy, 1993; Boutcher, 1992; Cox, 1994; Nideffer, 1993b; Orlick, 1990; Ravizza, 1993; Schmid & Peper, 1993) have agreed that concentration skills are central to fully attaining one's

performance potential. Nideffer (1993b) has stated this succinctly: "The ability to control thought processes, to *concentrate* on a task (e.g., to 'keep our eye on the ball') is almost universally recognized as the most important key to effective performance in sport". (p. 243)

Many of the skills in the mental training consultant's cache have concentration, or focus as their objective. Relaxation, imagery, distraction control, preperformance routines, thought stopping, centering, positive self-talk and cognitive restructuring are all techniques which enable their practitioner to attain, sustain or regain focus throughout a performance (Bunker, Williams & Zinsser, 1993; Cohn, Rotella, & Lloyd, 1990; Cox, 1994; Harris & Williams, 1993; Nideffer, 1993a; Orlick, 1990; Ravizza, 1993; Ravizza & Hanson, 1995; Schmid & Peper, 1993; Vealy, & Walter, 1993). Therefore, it seems that attention deserves attention.

It is apparent that highly skilled performers exert effective attentional control. In his illustration of then two time U.S. Amateur champion and Stanford golf team phenom Tiger Woods, Reilly (1995) shared the following: "Once at a tournament a marshal's walkie-talkie went off at volume 10 out of 10 during the boy's backswing. The boy admitted later that he never heard it." (p. 65) Other instances of successful performers having an enhanced ability to concentrate have been cited. In their golf study, McCaffrey and Orlick (1989) reported that professional golfers demonstrated a proficiency in their ability to focus. As well, this ability has often been voiced by athletes who have experienced peak performance (Cohn, 1991; Ravizza, 1977). Similarly, complete concentration is one of the most commonly cited aspects of flow, flow being an ideal

psychological performance condition (Csikszentmihalyi, 1990, 1993; Jackson & Marsh, 1996).

Thus, concentration or attention is a much desired mental attribute. And because it is such an integral part of performance, one would think it would be a normal and easily accessible skill in the performer's repertory (Abernethy, 1993). However, there appears to be a gap between knowing we should have this skill and the consequences of its disappearance. Therefore, we need to learn how one attains and keeps it.

Nideffer (1993b) described the type of attention that is required for golf, one that shifts through various phases of attentional processing. Although the following illustration is complex, it actually occurs over a relatively brief period:

> When golfers step up to the ball prior to hitting a shot, they start off with a fairly broad-external type of attention. Golfers need to take in several different kinds of information. They need to be aware of the placement of hazards (trees, sand traps, out-of-bounds markers, water, etc.) and course conditions (dryness of the grass, amount and direction of wind). Once they have gathered this external information, golfers shift attention to a broad-internal focus to plan their shot. At this time, they should try to recall past similar situations, remembering how they played them and what the results were. Then they must think about any changes they may have made in the meantime, changes that might modify how they should now play this similar situation (e.g., have they changed their swing, gotten new clubs; are they in a different tactical position such as needing to be conservative or to take a risk). Analyzing all of this information allows golfers to select a particular club and to determine how they want to hit the ball. Once golfers have formulated a plan, they shift to a narrow-internal type of concentration to monitor their own tension (e.g., making sure they are not too tight or too relaxed) and mentally rehearse the shot. They may picture in their mind what they want to feel and see as they execute the shot. Finally, golfers shift attention to a narrow-external focus as they address the ball and begin their backswing. At this time concentration is on the ball; to attend to other external or internal cues would only interfere with their execution of the shot. (p. 245)

While this chronicled the dimensions through which a golfer's focus should evolve, only the best golfers appear to have the mental discipline to direct their focus in an effective manner, and on a consistent basis.

Golf is an unusual activity in that brief periods of intense concentration, as described above, are interspersed with very long periods where little or no concentration on the game is required. In fact, it would be very improbable for one to sustain intense concentration over the duration of a competitive golf game, which can last for four hours or more.

Thus, these inherent delays between shots provide numerous opportunities for players to let their minds wander. Unfortunately, many golfers do not use this time to their advantage by letting irrelevant thoughts take over their consciousness. Instead, the tendency is to mentally wring their hands about mistakes already made, or waiting to be made, perhaps on the very next shot. Thoughts might turn to one's score, competitors' scores, how one's performance will be perceived by others, what score is needed to make the cut, for example. Add to these internal distractions the external ones over which no golfer has control: Weather may impose an extra challenge; planes' scheduled departures and arrivals fail to respect one's golf agenda; voices coming from other holes being played and animal sounds seem to resonate at a tremendous volume as they pierce the natural tranquillity. The player who has developed routines to block out the head noise and the environmental noises, is at a clear advantage over his struggling colleagues. It is therefore critical that we learn from those who are successful in establishing a strong tournament focus, one that is unshakable, or once shaken, can be re-established consistently.

Research on the attentional ability of golfers is sparse. Anderson and Barclay (1990) were interested in exploring the mental processes of golfers. They developed an inventory to record how frequently collegiate golfers had thoughts pertaining to imagery, managing the external environment, and swing mechanics. This is apparently the single study purposely designed to examine the nature of golfers' thoughts. The present research extended this by appraising these processes in their natural setting, on the golf course, and in an actual competitive context. It also employed the introspective research technique of stimulated recall interviews using videotaped sequences (Allison, 1987; Bloom, 1953; Byra & Sherman, 1993; Calderhead, 1981; Ennis, 1994; Fernandez-Balboa, 1991; Gaier, 1954; Haughian, 1996; Lee, Landin, & Carter, 1992; Tan, 1996; Walkwitz & Lee, 1992), a technique that had not yet been used to explore the cognitions of golfers.

Other research that has been conducted in golf has coincidentally touched on the topic of attention. These works explored the mental readiness strategies of professional golfers (McCaffrey & Orlick, 1989), qualities of peak performance in golf (Cohn, 1991), and psychological and psychomotor skills required for proficiency in golf (Thomas & Over, 1994). These studies revealed that highly competent golfers, whether professional, skilled amateurs, or those experiencing peak performance, all had developed abilities to focus on the task at hand, and were able to exercise control over distractions. Cognitive-behavioral interventions have also been designed to study various aspects of the golfing experience. One of the elements of Kirschenbaum and Bale's (1980) intervention program was aimed at managing attentional focus, since it was one of the determinant factors to which professional golfers gave great importance. Crews and Boutcher (1986) also

observed the preshot routines of professional golfers, which has been linked to enhanced attentional control. Based on this belief, Cohn, Rotella and Lloyd (1990) developed an intervention program to increase golfers' adherence to preshot routines.

Hence, some research has been done in golf that indirectly addressed the issue of attention. However, most work has been conducted in a contrived situation or in one far removed from the game's natural setting. Other than the Anderson and Barclay (1990) study, no attempt has been made to document in a definitive manner what golfers think about during a game. The present study aimed to build on previous work regarding the thought processes of golfers by using a potentially rich methodology.

Purpose of the Study

The purpose of the present research was to document the preperformance thoughts of expert golfers during their play in a tournament round, in order to determine the states of mind and emotion these golfers experienced, and to examine the relationship of this mental and emotional activity to subsequent golf performance.

Justification for the Study

The importance of this study is that it aimed to investigate an area that few researchers (Anderson & Barclay, 1990) have previously examined. Little attempt has yet been made to gain insight into the thought processes or cognitive strategies of competitive golfers, although these appear to be fundamental clues to golfing success.

Participants in this study have achieved a certain level of ability that surpasses the majority of people who play this game. In fact, only 0.46% of male golfers in the U.S. play

as well as the current informants (Sanders, 1996). Therefore, the present sample may be considered an expert group whose knowledge and experience will be of value to others.

As such, this study presented an opportunity to poll the cognitive processes and strategies that are used under tournament conditions for a successful group of golfers. Consequently, the potential exists for anyone in the golf profession, including mental training consultants, to benefit from these findings, should they choose to relay the information to those aspiring to improve their own competitive performance through refined attentional skills. As stated by Streigel (1992),

> What better way for athletes or coaches to learn about success in their respective sports than through detailed, descriptive accounts of the lives of others who were in similar situations and have reached a high level of performance. . . . [I]t suggests that there might be something of value within the experiences of those who have succeeded that may benefit those who are striving to achieve a similar level of performance. (p.48)

The investigative process may have benefited the participants directly by illustrating some aspects of their mental preparation that needed to be strengthened. From this, a framework for developing customized mental skills training programs may be established to improve their play.

Finally, the current study presented an opportunity to test the methodology as a means of thought-sampling, and to learn how the process could be refined. It will hopefully encourage researchers in other domains to develop a more successful technique so that the information regarding the thought processes of any performer can be gathered in a reliable and chronologically accurate fashion.

REVIEW OF LITERATURE

This section first presents a review of golf research, examining those studies which specifically looked at attention or which were related to attentional processes. This was subdivided into groups of investigations pertaining to mental skills and processes, preperformance routines, and exceptional performers. The limitations were presented as part of the review of each item of previous work, to illustrate how the present study attempted to overcome some of those shortcomings. Subsequently, studies completed using the stimulated recall methodology were reviewed. This section was also divided into groups of studies, those of general education, physical education, and sport. Finally, some of the limitations of stimulated recall interviews as a research technique were addressed.

Golf studies

There has been very little research conducted in golf with attention or focus as the main topic of inquiry. Nevertheless, some work has been undertaken that may not have examined attention as the primary problem, but which related to attention in some way.

Mental Skills and Processes

Anderson and Barclay (1990) designed a study to examine the profile of mental processes employed by collegiate golfers. An 18 item Golf Thought Process Inventory was developed to assess the golfers' view of how frequently imagery, thoughts pertaining to managing the external environment, and those relating to swing mechanics were used. This tool was administered in a non-competitive context to 77 male collegiate golfers by their coaches, and it was found that the items with the highest frequency rankings involved green analysis and imagery in putting, avoiding external distractions, target selection and

shot execution imagery. Mechanical process items were rated with lower frequency scores. Thus, more thoughts reflected imagery and managing the external environment than swing mechanics. The authors stated that this pattern concurred with what is generally prescribed as sound mental techniques required for playing golf; however, this group of golfers failed to systematically use these mental skills.

The Anderson and Barclay study was wanting on two fronts. Although the authors were interested in the mental processes employed by varsity level golfers, the Golf Thought Process Inventory was administered in a non-competitive situation. The subjects were thus required to reconstruct their thoughts regarding competitive circumstances in a context that was far removed from the actual environment of study. As well, by offering the inventory items, the subjects were guided towards responses that might not have been evident were their own observations polled without suggestions or prompting.

Thomas and Over (1994) examined the psychological and psychomotor skills required for proficiency in golf, and investigated whether differences were displayed by amateur players of differing handicap levels. They developed an instrument, the Golf Performance Survey, by polling 172 male players who rated items pertaining to psychological skills and tactics, psychomotor skills, and involvement in golf. Factor analysis of the items produced nine factors. The factors relating to psychological skills and tactics were termed negative emotions and cognitions, mental preparation, conservative approach, concentration, and striving for maximum distance. Those related to psychomotor skills were termed automaticity, putting skill, and seeking improvement. The one factor related to involvement in golf was termed commitment.

The authors then examined whether differences in the above factors emerged across skill levels. Two groups, each with 34 respondents, were formed of more and less skilled golfers based on their golf handicaps. Of the nine above mentioned factors, Thomas and Over found the two levels of golfers differed significantly on five of them. The more skilled golfers exhibited greater mental preparation, better concentration, a higher automaticity, greater commitment, and fewer negative emotions and cognitions. The authors contended that their findings on amateur players were not unlike those obtained with professional players (McCaffrey & Orlick, 1989).

In the Thomas and Over (1994) study, the authors failed to substantiate the criteria by which they divided the subjects into groups of more and less skilled golfers. Thus, the handicaps chosen to distinguish between the two groups seemed to be randomly selected. Furthermore, it is not clear whether the gap in handicaps between the two groups is sufficiently large for the researchers to claim a real disparity in skill level. The study also fell short by requiring its participants to reconstruct their thoughts in an environment removed from the game's natural setting.

Kirschenbaum and Bale (1980) identified certain cognitive skills that were essential for sound athletic performance in closed skills, and more specifically in golf. The skills emphasized were the use of imagery techniques, processes for effective self-regulation, techniques to improve self-confidence, and methods to manage anxiety and direct attentional focus. In a review of the popular golf literature, the authors attempted to determine those elements to which professional golfers most frequently attended. These skills and elements were synthesized with the authors' own knowledge of the game to

produce a cognitive-behavioral program called Brain Power Golf (BPG). The program was then implemented on a small scale with collegiate golfers. Over two competitive seasons, only three starters on the golf team received BPG training, and in the second season, one starter could serve only as a control subject. Changes in the players' postintervention performance were inconclusive. While the two experimental subjects' performances improved slightly, as expected, the control subject's performance also improved over one phase of the study. Thus, the treatment effects responsible for improvement could not be isolated within this small scale investigation. Nevertheless, anecdotal evidence from all exposed to the program was favorable, and these players recommended the program to others. Hence, despite the limitation in the study's scope, the BPG program suggested certain potential benefits.

The Kirschenbaum and Bale study was weak in that the investigators tested their program on a very small scale, and in a somewhat unstructured and uncontrolled manner. This work, however, had the potential to provide more conclusive results regarding the possible training of cognitive skills for the enhancement of golf performance.

In general, the studies concerning mental skills and processes failed to investigate the problem in the game's natural setting, or to capture the content of the processes, or the essence of how the mental skills were executed. The current project addressed these very aspects, and did so in a manner that allowed the information to flow without any predetermined suggestions to the participants.

Preperformance Routines

Crews and Boutcher (1986) stated that preshot routines may enhance performance by diverting the performer's attention away from irrelevant information, or from thoughts pertaining to the execution of a well-learned skill. With this in mind, the authors conducted a behavioral observation analysis to examine the nature of preshot routines used by golfers on the Ladies Professional Golf Association (LPGA) Tour. As well, the authors looked at LPGA player rankings to delineate between more and less skilled golfers, in order to make comparisons between the two groups. Twelve golfers were observed during 12 holes of competition, where the behaviors and duration of preshot routines for full shots and putts, and reactions to shots were recorded. The authors discovered that all golfers, despite their ranking with the LPGA, used preshot routines that were very similar in content, and included such elements as practice swings, waggles, and glances. As well, the behaviors and duration of each golfer's routine were remarkably consistent over the 12 holes observed. Crews and Boutcher did find that the more successful players took longer to complete their preshot routines on both full swings and putts, leading the authors to speculate that more time was being devoted to imagery techniques, and that longer preshot routines may be associated with greater use of more fully developed mental preparation strategies. In addition, Crews and Boutcher found that the more successful golfers displayed fewer negative and neutral and more positive emotional responses to their shots. The authors concluded that elite golf performance is characterized by the consistent use of well-defined, repetitive preshot routines.

Although Crews and Boutcher were able to identify the observable components of a preshot routine and their stability throughout a round of golf, these overt behaviors were not linked to the thinking and planning that preceded them. The present inquiry aimed to capture some of this information.

Cohn et al. (1990) also believed there was enough supporting evidence to claim that a preshot routine better prepared golfers for subsequent performance. Thus, the authors designed a cognitive-behavioral intervention for golf to determine if adherence to such a routine could be improved, with subsequent performance gains. Three male collegiate golfers were taught a preshot routine which included both cognitive (covert) and behavioral (overt) components. The authors were satisfied that adherence to both the mental and physical routines improved across all subjects during the course of the study. However, a significant, immediate improvement in performance was not evident; hence, this study failed to demonstrate the link between preshot routine adherence and improved performance. Nevertheless, in poststudy interviews, all participants emphasized that the practice of the preshot routines improved their concentration.

The anecdotal evidence provided by Cohn et al. that preshot routines contributed to improved concentration was noteworthy. It remains to be learned how these routines enhanced concentration, or which thoughts experienced during the golfers' preshot routines were most conducive to attaining this focused state.

Fairweather and Potgieter (1993) also examined the preshot routine in golf. They attempted to identify which of two strategies, a cognitive or a cognitive-behavioral preshot routine, was most effective in improving putting performance. The study was

conducted with 24 male amateur golfers, aged 15 to 35, who carried a single digit handicap. Putting performance was measured in a laboratory setting, at first in a pretest. Two experimental groups and one control group were formed, with the first experimental group receiving instruction in attentional control, centering and preshot routines. The second experimental group received this instruction as well, but were also trained in imagery and relaxation techniques. The control group received no instruction. All putting performance was remeasured in a posttest. The results of the study were inconclusive. The authors acknowledged there was some improvement following the intervention with the cognitive-behavioral group. However, they did not discount the possibility of improvement for the other groups as well. Thus, the researchers believed that putting performance could benefit from a combination of behavioral and cognitive routines, and that this issue should be studied in the field to support these preliminary indications.

Despite equivocal findings, Fairweather and Potgieter finally addressed the cognitive aspect of preperformance routines. However, by the authors' own admission, the laboratory setting was not ideal, and the problem needed to be pursued in the natural field of inquiry. As well, justification for the inclusion of specific cognitive elements needed to be established.

Exceptional Performers

Exceptional performers set a standard for those striving to improve their own performance; thus, learning from them can be valuable. McCaffrey and Orlick (1989) were interested in exploring the mental readiness strategies used by top professional golfers, or touring pros, and to investigate whether this group exhibited common elements of

excellence in their pursuits. As well, the authors contrasted their findings to a group of club professionals. The study was conducted with 14 touring pros from the Professional Golf Association (PGA) and the LPGA, and nine club professionals. McCaffrey and Orlick used the Golfer Interview Guide, a series of open-ended questions, to encourage the emergence of mental readiness strategies.

The results revealed that the touring pros differed from the club professionals on most elements required for excellence in golf performance. The touring pros expressed a greater commitment to the game, practiced with quality, had clearly defined goals, practiced imagery regularly, had detailed plans for practice and tournament play, and a distinct tournament focus plan. They also engaged in strategies for distraction control, reserved time for tournament evaluation, and had a clear sense of what constituted the difference between a good and bad performance. These same characteristics were not as evident in the group of club professionals. McCaffrey and Orlick discussed the similarities of the success elements offered by the touring pros to those identified by Olympic Medallists and World Champions of 1984 (Orlick & Partington, 1988). The authors concluded that the aforementioned success elements are skills and perspectives that must be developed by individuals striving for excellence in high performance sport, including golf.

From another perspective, Cohn (1991) explored the psychological qualities of peak performance in golf, since achieving and maintaining this state was identified as being an important goal of all athletes. Cohn conducted structured open-ended interviews in this qualitative study of 19 professional and collegiate golfers. The results suggested that peak

performance in golf was a temporary state or intermittent phenomenon which was most frequently characterized by a narrow focus of attention, and a present orientation or being absorbed by the task at hand. The informants experienced effortless and automatic performance, physical relaxation and mental calmness, and a feeling of control of one's performance. As well, there was an absence of fear of negative consequences, a maintenance of high self-confidence, and the experience of fun and enjoyment that comes with playing well, attaining goals, and playing in a state of mastery. Although peak performance is a sporadic and somewhat elusive state, attending to some of the factors that characterize it may set the stage for a superior or enhanced performance.

In looking at the McCaffrey and Orlick (1989) and the Cohn (1991) studies, it is evident that these works could be further extended. While the golfers in these projects provided insight into the ingredients of exceptional performance, it is still unknown how various strategies and performance states were fine-tuned in the evolution of a golf round. The current study queried these issues.

Stimulated Recall Methodology

Stimulated recall is a process by which a subject is asked to review a videotaped or audiotaped event in order to encourage the recall of the concurrent thought processes or decision-making (Bloom, 1953). Stimulated recall interviews are "based on the notion that people can be assisted in reliving previous situations with precision and detail if they are presented with enough cues from the event" (Allison, 1987, p. 244).

The following section presents research which has used the stimulated recall method in the domains of general education, physical education, and sport.

General Education

A pioneer of the stimulated recall technique, Bloom (1953) used it to examine student thoughts during lecture and discussion classes, to determine which style of presentation was most effective. The study of five lecture classes and 29 discussion sessions was undertaken at the College of the University of Chicago. As such, Bloom audiotaped the classes, and while playing back the tapes during postclass interviews, stopped them at critical points to allow the students to convey the thoughts that were present during the actual event. These interviews occurred within 48 hours of the original class. Analyses of the frequency of particular classifications of thoughts revealed that the discussion classes were more successful in keeping students' thoughts actively connected to the learning situation. Bloom applauded this stimulated recall method not only as a reliable means of calling forth thought processes, but also because this procedure allowed the event to proceed with limited interference by the researcher. The subjects were requested to describe their thoughts following the event, not as they were occurring.

Calderhead (1981) reviewed the use of stimulated recall methodology to investigate teachers' interactive thoughts and decision-making. He highlighted certain difficulties that have plagued the use of the procedure to document these cognitive processes. Teachers' anxiety or self-consciousness about their competency, their unique perspective which may or may not have been captured by the camera, and their distractibility, were factors Calderhead described as troublesome, yet surmountable. In addition, some cognitive processes might become highly automated, and the teacher might no longer be able to verbalize the rationale behind some behaviors or decisions. There was

also the chance that the interviewee might design explanations that would be viewed as appropriate ones, rather than risk one's own cognitions. An important factor stressed by Calderhead that could influence teacher responses was the way in which the teachers were prepared, or instructed on how to proceed during the stimulated recall interview.

In addition to the difficulties of data collection using the stimulated recall methods, Calderhead described the difficulties in interpretation of the data. Validity of recalled thoughts was the central issue, in view of the impossibility of verifying them. Thus, an inference was offered that one needed to accept the accuracy of recalled thoughts in parallel with the accuracy that could be achieved with verifiable behavior. One also had to accept largely on trust that the thoughts reported during stimulated recall reflected the true thoughts of the incidents being investigated. Calderhead proposed that, in a rudimentary fashion, the teachers' thoughts could be verified by their internal consistency, and "the degree to which teachers' accounts appear to match observed classroom practice" (p. 215). Finally, Calderhead surmised that despite the unresolved question of the validity of recalled thoughts, the stimulated recall method allowed a standardized means of data collection which could be advantageous in research on teaching. He recommended, however, that this technique be used in conjunction with other data collection methods.

The issue of the validity of verbal reports was addressed by Gaier (1954), who compared the accuracy of thoughts described under conditions of free recall versus those disclosed in stimulated recall. Sixteen humanities students, aged 17 to 24 years, participated in the study. The outcome disclosed that thoughts were more accurately

remembered with stimulated recall. In addition, Gaier suggested that the validity of reporting one's conscious thoughts could be judged by the degree of confidence with which they were expressed.

Confirmation of the accuracy with which events are recalled was offered by Bloom (1953) as well as Gaier (1954). Both authors ascertained that accurate recall of overt, verifiable activity reached 94% to 95% when the recording was played back within two days of its original occurrence. As well, these authors found that memory of the overt activity declined to 65% once the delay between the original occurrence of the event and the playback of its recording reached a period of approximately two weeks. The critical assumption made by Bloom and Gaier was that the recall of thoughts was analogous to the recall of overt verifiable activity:

> The inference that the recall of one's own private, conscious thoughts approximates the recall of the overt, observable events has led to the anticipation that the accuracy of the recall of conscious thoughts is high enough for most studies of learning situations - if the interviews are made within a short time after the event. (Bloom, 1953, p. 162)

Finally, Bloom (1953) and Gaier (1954) both expressed the belief that one was more likely to divulge one's private thoughts truthfully if a comfortable, trusting rapport had been established between the investigator and subject.

Physical Education

Allison (1987) used the techniques of think-aloud and stimulated recall to document what preservice physical education teachers observed during an early field experience, and to learn how they came about making the observations. The researcher observed six junior level physical education majors, each of whom taught three 15 min

field experience lessons. After a 10 min recess, think-aloud was used to produce data on what the subjects were seeing, and what perceptual processes they were using. Within one week, stimulated recall interviews were initiated. The subjects were presented a transcript of their think-aloud observations, and videotapes of their lessons, to stimulate recall regarding how they went about observing what they did. The data produced by the stimulated recall process supported data collected with the think-aloud technique, that described the perceptual processes of observation.

Another study of preservice physical education teachers was conducted by Fernandez-Balboa (1991) during which he used interviews and stimulated recall with videotape to gather data on the beliefs, interactive thoughts, and actions concerning pupil misbehaviors. Fifteen student teachers taught 40-50 min physical education lessons; three to five lessons per student were videotaped so that 20 misbehavior incidents could be identified. Immediately after the lesson, the researcher and student reviewed the videotape. For each identified misbehavior, the subject was asked a series of open-ended questions, to stimulate recall of the thoughts and decisions that accompanied the actions taken to manage the misbehavior. The student teachers' expectations of proper pupil conduct, and their management of pupil misbehaviors were clearly a reflection of their own experiences as pupils.

Lee, Landin, and Carter (1992) examined the cognitive processes reported by students during tennis instruction, and explored the relationship between the type of interactive thoughts and skill performance. Thirty fourth grade students, with no prior tennis instruction, were given two 30 min lessons on the tennis forehand ground stroke.

The students and teacher were videotaped, and frequency measures of successful trials were compiled for each student during practice sessions. Following each lesson, the students were interviewed using stimulated recall procedures. Four students at a time reviewed a video segment of the lesson, then separated to be interviewed privately by a researcher. Each of four segments was reviewed in this manner. In the interviews, the students were asked to recall what they were thinking about, and what they were trying to do during each lesson segment that was reviewed. The analysis revealed a significant positive relationship between skill-related thoughts and successful performance during class. The researchers regarded this as support for the concept that student thoughts are important mediators between instruction and student response patterns.

Walkwitz and Lee (1992) explored how teachers who received knowledge based training about developmental throwing were influenced in their observational interpretations, and how this affected their students' practice patterns. Eight kindergarten classroom teachers taught a six week overhand throwing unit to their classes; four of the teachers had received four hours of knowledge training prior to the commencement of the unit. All teachers taught weekly 20 min lessons, and were each videotaped on three occasions, once every two weeks. The stimulated recall interviews took place following each taped lesson. The tape was stopped at critical points during the lesson, at which time the teachers were asked a series of questions. The researchers compared the thoughts and knowledge concepts described by each of the two groups of teachers, and found that the knowledge-trained teachers expressed different patterns of skill observations. The training was reflected in the concepts taught and the instructional procedures used by the

knowledge-trained teachers. As well, their students demonstrated opposite foot throws more than twice as frequently as the students whose teachers had not received the knowledge training.

Byra and Sherman (1993) explored the planning and interactive thoughts and decisions of less and more experienced preservice physical education teachers (PTs). On two consecutive days, the PTs were given 90 min to prepare a lacrosse lesson, during which they were asked to think-aloud and verbalize their thoughts. After teaching, the PTs reviewed six 2 min videotaped segments of their lessons. The video was stopped after each 2 min segment, and the PTs were asked a series of structured interview questions to stimulate recall of decisions made during the lesson. Data analysis revealed that the six experienced preservice teachers made more information requests and decisions during planning than their six inexperienced colleagues. While all PTs taught from plans when things were perceived to be going well, only the experienced PTs made adjustments when it was perceived that lessons were not proceeding as planned.

To explore the value orientations that influenced curriculum content, Ennis (1994) examined the content and task decisions of 11 urban secondary physical educators, six from middle school and five from high school, who placed high priority on social curriculum goals. Two classes of differing content emphases, which occurred at least one month apart, were filmed for each teacher. Within 24 hours of filming, the teachers were asked to watch the video and to stop or rewind it to review various segments. During the stoppages, the teachers were questioned about the purpose of the activity, and why they had chosen it to convey their goals. All content decisions reflected a social responsibility

value orientation, and offered goals of cooperation, teamwork, and involvement. The middle school physical educators incorporated large group activities in their task structures, while the high school teachers emphasized individual activities performed as a member of a small group.

Tan (1996) examined the differences in the augmented feedback and interactive teaching decisions of five experienced and five inexperienced elementary physical education teachers. The researcher video and audiotaped three weekly lessons of 25 min duration taught by each physical educator. Following the second and third lessons, the teachers were shown ten 2 min segments of each of their lessons, during which an occurrence of feedback was observed. After viewing each segment, the teachers were asked a set of questions to stimulate their recall of cues attended to and decision-making processes used during teaching. The inexperienced teachers showed no difference to experienced teachers in their feedback structures. However, the perceptual patterns displayed in the perceptual maps of experienced teachers were complex and were organized hierarchically, whereas the patterns demonstrated by inexperienced teachers were sparse and shallow.

Sport

Stimulated recall has been used reservedly in the sporting context. An adaptation of a similar recall process has been used in situations where an individual's behaviour did not require interaction with another. This process of introspective recall has been referred to as protocol analysis, and demands the participant verbalize his thoughts as he executes some skilled behaviour (Calderhead, 1981; Ericsson & Simon, 1984).

Blackburn and Hanrahan (1994) employed various techniques to examine which of three thought recording procedures best captured the cognitive data, and was most preferred by subjects during treadmill running experiences. Six male competitive distance runners, aged 17 to 28, were required to execute one introductory, three familiarization and three experimental treadmill runs, each of 12 min duration and at an intensity of 75% of maximum age-determined heart rate. The experiment first tested a procedure that included think-aloud, protocol analysis, and postexercise recall. Next, questions were presented on slides during the run and videotaped for postexercise recall. Finally, think-aloud and videotaping was used for postexercise recall. The authors determined that similar thoughts were gathered by all three modes of data collection. However, in a postexperimental rating of the procedures, the subjects appraised most highly the think-aloud plus videotaping procedure for postexercise recall.

Haughian (1996) conducted a case study that examined the decision-making factors used by a youth ice hockey coach during game situations. Twelve games were videotaped, and the coach was interviewed immediately after the game. These processes provided the basis for stimulated recall interviews. One or two days following each game, the coach was asked to describe game decisions that he had selected, Type I events, as well as events selected by the researcher, Type II events. Specifically, the coach was asked to describe each event in terms of the action used, its goal, and the factor involved. After the coach's free recall of the event, the corresponding portion of the video was played to confirm the coach's description, and to stimulate recall of further detail. For Type I events, the coach was able to recall very precisely what he had discussed in the postgame

interview. In Type II events, the researcher provided cues to set the context of the decision, and for the majority of events, the coach's recall was very accurate. Analysis revealed that over half of the actions occurred when the coach addressed one or more players, and that the goal was to inform or give feedback. In contrast to what had been suggested previously in decision-making research, the coach in Haughian's study used many different factors in his decisions. In addition to players' performance, the most common factors considered by the coach were game score/outcome, time of game/time restraints, habits/history of team or player, game official(s) performance, and skill level of team/player(s). The author concluded that by adhering to a specific protocol, coaches are able to recall precisely events that occurred a few days previously.

An ongoing concern in stimulated recall procedures regards the validity of the thoughts recalled. Similar to previous research, two assumptions were made in the current study. First, the establishment of validity was assumed, in that viewing the videotaped event re-created it for the participants, and thus prompted them for accurate, detailed recollections of their concurrent thoughts (Bloom, 1953; Calderhead, 1981). In addition, it was assumed that the recall of thoughts by the participants was analogous to the process of recounting overt, verifiable activity, and that this could be enhanced if the thoughts were recalled within 48 hours of the original event (Bloom, 1953; Gaier, 1954). Thus, it was anticipated in the present study that the short delay between the end of the golf round and the stimulated recall interview would foster acceptable accuracy and validity of verbal reports of those recalled thoughts. Finally, as explained by Calderhead (1981), verification of data through multiple data collection techniques could be used, in a very rudimentary

fashion, to establish validity. In the current study, the trustworthiness of recalled thoughts could be ascertained by the degree to which they corresponded to behaviors captured on videotape, and to those commented on in the researcher's audiotaped observations.

In the reviewed studies on stimulated recall, it was not indicated whether a trusting, comfortable rapport had been established between subjects and the investigator. In the present work, the creation of an agreeable entente was pursued from the initial contact with potential participants, since such harmony is most conducive to an honest disclosure of participants' private thoughts (Bloom, 1953; Gaier, 1954). This was aided by the fact that most of the informants were familiar with my involvement in golf, which contributed to an atmosphere of reassurance and mutual respect during the interview. In that the interviews took place in a familiar location, the golf club, a more comfortable, trusting environment was presented to the participants.

One study that utilized stimulated recall in a sport context (Blackburn & Hanrahan, 1994), used a data collection method that was intrusive, in that it required the participants to verbalize their thoughts or answers to questions during the execution of the running activity. As well, the investigation took place in a laboratory setting, which the authors conceded was not optimal. The participants in the present study were able to play unhindered golf, and were only asked to verbalize their thoughts once the event had concluded. Hence, interference by a researcher during the event was not an issue.

Summary

The number of researchers who actively pursued the understanding of the thought content of golfers is limited. Anderson and Barclay (1990) discovered that successful

golfers were quite active in monitoring their focus, through thoughts pertaining to imagery and management of the external environment.

What has been discerned through other paths of exploration in golf has indicated that developed attentional skills were important, and were invoked more frequently by skilled golfers than by those less skilled in the game (Thomas & Over, 1994). Similarly, a proficiency in attentional control was practiced by successful professional golfers (Crews & Boutcher, 1986; McCaffrey & Orlick, 1989), and was experienced during peak performance in golf (Cohn, 1991). Intervention programs that included attentional training were assessed (Cohn et al., 1990; Fairweather & Potgeiter, 1993; Kirschenbaum & Bale, 1980). While the evaluations confirmed that attentional skills could be improved, only anecdotal support was provided for the contribution of the programs to subsequent enhanced play. It was also undetermined which particular aspects of a program were most beneficial to this improved performance.

Stimulated recall methodology was introduced as an alternative method through which to examine thought processes (Bloom, 1953). It has been used with some acclaim in the domains of general education (Bloom, 1953; Calderhead, 1981; Gaier, 1954), physical education (Allison, 1987; Byra & Sherman, 1993; Ennis, 1994; Fernandez-Balboa, 1991; Lee, Landin, & Carter, 1992; Tan, 1996; Walkwitz & Lee, 1992), and sport (Blackburn & Hanrahan, 1994; Haughian, 1996). Lee et al. (1992) stated that there was no way to be sure that what was revealed in the self-reports given during stimulated recall interviews was a true reflection of what occurred in the actual event. However, as in the current study, the authors accepted this limitation in order to explore their research questions.

The vacuity in the consideration of golfers' thought processes has persisted due to a weakness in two main aspects--context, and methodology. These shortcomings were both addressed in the design of the current study. The methods section that follows explains how this was achieved.

METHODS

The Qualitative Research Approach

As stated by Denzin and Lincoln (1994), qualitative research is "multimethod in focus, involving an interpretive, naturalistic approach to its subject matter" (p. 2). As such, the problem being investigated is viewed in its natural setting, using a variety of methods or materials, in an attempt to understand the meaning people bring to it.

Qualitative research differs from its quantitative counterpart in a number of ways. Several assumptions relevant to the qualitative methodology are accepted by its investigators, and are described by Bogdan and Biklen (1992) in the following:

> 1. Qualitative research has the natural setting as the direct source of data and the researcher is the key instrument.
>
> 2. Qualitative research is descriptive. The data collected are in the form of words or pictures rather than numbers.
>
> 3. Qualitative researchers are concerned with process rather than simply with outcomes or products.
>
> 4. Qualitative researchers tend to analyze their data inductively. They do not search out data or evidence to prove or disprove hypotheses they hold before entering the study; rather, the abstractions are built as the particulars that have been gathered are grouped together.
>
> 5. "Meaning" is of essential concern to the qualitative approach. Researchers who use this approach are interested in the ways different people make sense out of their lives. (pp. 29-32)

Consistent with the points noted above, the present study was befitting a qualitative investigation for several reasons. First, the study was exploratory in its approach. There is a lack of information concerning the cognitive strategies golfers use for attentional purposes, particularly as they occur in the competitive context. Therefore, the

tournament event provided the natural setting in which to capture these cognitive data, information that could not be realistically provided in a laboratory or experimental setting. Similarly, in accepting the role as key instrument with which to record the study's meaning, I became immersed in the situation and engaged in thorough interaction with the participants. It was my observation of, probing for, and interpretation of the data that founded the story told by the informants. In addition to the cognitive strategies the informants deployed as they played competitive golf, the matter of inquiry also included the significance the context and strategies had for these players. All findings were reported as they emerged from the informants' stories, a method critical to an inductive process. Therefore, the current study was clearly well-suited to the qualitative research approach.

The Role of the Researcher

It has been asserted that in qualitative research, the investigator is the primary instrument or measurement device for the collection and analysis of data (Bogdan & Biklen, 1992; Creswell, 1994; Locke, Spirduso, Silverman, 1993; Miles & Huberman, 1994). Some of the skills required to perform qualitative research were described by Strauss and Corbin (1990) as being the ability to "step back and critically analyze situations, to recognize and avoid bias, to obtain valid and reliable data, and to think abstractly" (p. 19). In reality, the qualitative research situation would likely never be completely objective. Rather, the researcher brings to the process various past experiences and knowledge on which to draw in order to help interpret the data that are collected. On this issue of researcher bias, Locke et al. (1993) succinctly illustrated why it is inherent in

the qualitative procedure and how it can be moderated so as not to become destructive to the inquiry:

> Direct presence as part of the research process means that the entire biography of the investigator - values, habits of perception, intellectual presumptions, and personal dispositions - becomes potentially relevant to gathering, analyzing, and understanding the data. There is no strategy that can eliminate the routing of data through the perceptual processes of the investigator. All that can be done is to understand enough about the nature of those processes so as to control the most serious threats to capturing an accurate picture of the world as understood by the resident(s) in the setting. (p. 110)

A long-standing preoccupation with golf has colored my familiarity with thought processes called upon during a game. This preoccupation has been characterized by playing competitively for many years, caddying for my brother--a better than zero handicap golfer, and spectating at amateur and professional events-- including repeated visits to the LPGA Du Maurier Classic, the PGA Canadian Open, and the Masters' practice rounds at historic Augusta National. I've also reviewed countless hours of major PGA tournaments recorded on videotape, read a great number of golf magazines and books, and engaged in many discussions about various aspects of the game with golfing relatives, friends and enthusiasts of diverse experience.

Because of this multi-faceted involvement in golf, I began this study with unavoidable biases. These biases likely influenced how I absorbed and viewed the research experience. Nevertheless, as offered above by Locke et al. (1993), what I brought to the research environment was a positive aspect of the process, and I feel my experience served me well. It formed a framework to assist in empathizing with and understanding the informants, as well as providing the basis with which to interpret the descriptions of their individual realities. As I commenced this inquiry, I believed that the informants possessed

various mental strategies that assisted them in controlling their thought processes, and thus their focus, in competitive golf. I believed that the development of this ability surpassed that of the average golfer, and that documentation of it could assist those involved in helping golfers perform to their potential, by teaching them how to improve their attentional control.

Gaining Entry

The first step in acquiring permission to conduct the study and securing access to potential informants required contacting the Director of the Quebec Golf Association (QGA), who was responsible for overseeing all aspects of the scheduled contests of the QGA Tour. His enthusiasm was immediately recognizable, yet it would be necessary to contact the tournament director of each particular event and obtain his approval as well. This sanction then allowed potential respondents to be approached for their consent to participate in the study.

Ethical Considerations

A proposal for the study was submitted to the University of Ottawa's Human Research Ethics Committee, which was accepted without modifications. In the proposal, several sensitive issues were addressed. To retain confidentiality of data, it was affirmed that the data collected would only be accessed by the immediate research team, consisting of myself as investigator, my supervisor, and possibly another graduate student. When not in use all audiotapes, videotapes and interview transcripts would be securely stored. The anonymity of participants would be ensured by assigning a number to each of the subjects, and using only these numbers for identification purposes in transcripts and text. As well,

these circumstances would be clearly explained to all subjects when securing their informed consent to participate in the study, and their permission would be obtained to use any quotations in the report text. Finally, it was reiterated that the research would only be used as defined in the purpose of the study.

Data Collection Procedures

Bounding the Study

The setting. The data were collected at several tournaments organized by the QGA and the RCGA (Royal Canadian Golf Association). These were summer amateur golfing events held at various clubs in Quebec and Ontario. The locations included in the study were Ottawa, Quebec City, Chicoutimi, and Montreal.

The actors. As stated by Creswell (1994), the object of sample selection in qualitative research is to select informants who are best acquainted with the situation being investigated. Likewise, Stake (1994), in reference to sample selection, affirmed that "the main work is science, an enterprise to gain the best possible explanations of phenomena" (p. 243). Therefore, informants for the study were selected in a purposive (Miles & Huberman, 1994) manner, rather than randomly. As such, a goal of this study was to work with male amateur golfers, with handicaps of two or less, who regularly competed in tournaments organized by the QGA and RCGA. A number of players who were rated among the top 60 by the QGA, based on results of the previous year, and who met the handicap criteria, were contacted by telephone or in person. The purpose of the study was explained, and they were asked to participate on a volunteer basis. These golfers were targeted as potential participants since they all had a prolonged competitive

involvement with the game, and had achieved high provincial rankings. Also, accessibility to this group was a major consideration in its selection as a pool of possible informants.

Following the procedure offered by Miles and Huberman (1994), all informants were not prespecified before the study commenced. The authors explained that samples "can evolve once fieldwork begins", and that "initial choices of informants lead you to similar and different ones" (p. 27). In the present study, tournament officials and players felt that the pairings resulting from tournament draws might necessitate careful selection of respondents as the study progressed. It was agreed that some competitors might not want to be assessed, while some playing partners, or co-competitors, might not want a researcher following their group. As well, I did not wish to expose potential participants to the research process before entry into the study. Each successive informant could not have been in a previously observed group.

A sample of five to seven participants was sought, a group size deemed manageable due to the anticipated lengthy investigation with each member and the resultant volume of data to be collected. In fact, the recruitment of seven informants was achieved. This fell within the prescription described by Miles and Huberman (1994) in the following: "Qualitative researchers usually work with *small* samples of people, nested in their context and studied in-depth." (p. 27)

The events. Using data collection methods as described below, the present research aimed to investigate the thought processes and mental strategies of the respondents as they played a competitive round of golf. The content of those thoughts and strategies, and their meaning for each individual observed and interviewed, was the target

of the investigation. It was anticipated that these golfers would reveal processes that assisted them in attaining, maintaining or regaining focus.

Data Collection Strategies

Videotaping

As investigator, I followed one participant per tournament for one round of 18 holes. I videotaped the participant from the time of club selection until postshot reaction, for each shot and each putt played during the round. In this manner, the behaviors related to course management or decisions were recorded, as well as the individual's preshot routine, execution of the shot, and reaction to it. The camera did not capture the flight of the ball, nor was it running as we proceeded from one shot to the next.

Observation

While walking between shots, I also made my own verbal observations of the scenario into the microphone of a portable tape-recording device. This was accomplished in a very unobtrusive manner, while walking at a distance from the participant and his fellow competitors. The aspects upon which I wished to comment complemented those captured on videotape, and addressed the golfer's timing, rhythm, verbalizations, emotional reactions, retention of preshot routines, as well as my own comments on their behaviors and interactions with others throughout the round. These items were listed in an observation protocol which I carried during the round, and which was referred to as needed (see Appendix A).

Interviews

Shortly after the conclusion of the day's round, ideally within one hour, the participant and I moved to a preselected location away from the crowd to conduct the next phase of the study. This included having the golfer fill out a background information sheet (see Appendix B). Subsequent to this we proceeded with the stimulated recall interview. I asked the golfer to review his round shot by shot, while describing what he was trying to do, what he was thinking or feeling. Following the discussion of a hole, the corresponding portion of the videotape was played for the purposes of stimulated recall (Allison, 1987; Blackburn & Hanrahan, 1994; Bloom, 1953; Byra & Sherman, 1993; Calderhead, 1981; Ennis, 1994; Fernandez-Balboa, 1991; Gaier, 1954; Haughian, 1996; Lee, Landin, & Carter, 1992; Tan, 1996; Walkwitz & Lee, 1992), to confirm the participant's perceptions, and to encourage any supplemental information that could emerge from studying the video. Instructions to participants regarding this protocol are outlined in Appendix D. The interview protocol, also in Appendix D, served as a reminder of items to be covered in our discussion. However, due to the open-ended nature of the interview questions, and the unpredictable nature of the golf round itself, occurrences that were described prompted additional questions as we proceeded through the recall of the round. Thus, I remained flexible and followed the flow of the interview, and further probed issues as they arose, thereby heeding the words of Fontana and Frey (1994): "The researcher must adapt to the world of the individuals studied and try to share their concerns and outlooks. Only by doing so can he or she learn anything at all." (p. 371)

The dialogue from all interviews was tape-recorded and later transcribed verbatim for analysis.

Discussion of Data Types

Recall that the data were collected by means of videotape, observations, and interviewing. There are advantages and disadvantages relating to each data type, as explained by Creswell (1994).

The videotaping may embody a low profile means of collecting data, and allows a researcher to directly experience the respondent's world. However, this direct sensing of the participant's reality does not guarantee an accurate interpretation. In addition, a researcher's presence with a camera can be disruptive and may cause respondents to behave in a less natural manner. Nevertheless, this data collection method was required for the stimulated recall process, the benefits of which were anticipated to surpass the present limitations.

The advantages that Creswell (1994) listed about behavior observation as a data collection technique included the opportunity for an investigator to have a first-hand experience with the participant, to catalogue information as it happened, and to note and reflect upon any untoward dimensions of the situation. However, as Creswell pointed out, the success of observation as a data collection tool may be limited should the investigator be regarded as intrusive. This is especially true if the researcher is unskilled at attending and observing. These shortcomings were addressed in the current study in that personal efforts were made during the observation to blend in with other spectators while at a

distance from the participants. As well, personal observational skills have been honed through years of monitoring the competitive performance of golfers.

The interview as a data collection technique was favored by Creswell (1994) as a means for the informants to provide supplemental and historical facts, and also permits the researcher to manage the type and direction of the interview process. Still, this data collection method is not without its drawbacks. First, the information offered in an interview may not be as genuine as one would desire, since it is likely to be screened through the perceptions of the informant. In this manner, the informant's description of what he was trying to do may be a reflection of what he normally would do, or what he knows he should do. Furthermore, the presence of a researcher may cause an informant to have response biases, and to frame them towards what it is believed the researcher is seeking, or to be regarded more favorably. Finally, not all participants are "equally articulate and perceptive" (Creswell, 1994, p. 150), and though they may have an abundance of valuable experience and information to share, accessing and expressing it may pose a problem.

Fontana and Frey (1994) suggested that there were ways to deal with most of the difficulties inherent in interviewing so that the researcher was more likely to extract a true picture from the informant. The authors stated that since the soul of unstructured interviewing is "the establishment of a human-to-human relation with the respondent and the desire to *understand* rather than to *explain*" (p. 366), it is imperative for the researcher to foster rapport with participants. This was possible to garner in the present study since I was acquainted with many of the participants, and possess, what have been referred to as,

exceptional interpersonal skills that helped "to put the respondent at ease, *so that he will talk freely and fully*" (p. 369). Fontana and Frey believed it equally important to establish trust between the researcher and the informants. In the current study, this was aided by extensive, personal experience and involvement in the game of golf, of which the informants were well aware, and which enhanced credibility. An emphasis on the confidentiality and anonymity of the participants' role in the project also nurtured the needed trust.

Thus, the data acquisition types described above complemented each other, and collectively enhanced the depth and integrity of the study. Similarly, this multi-method approach to data collection served to cross-check or triangulate the data, thereby enriching its consistency and validity (Adler & Adler, 1994). The topic of triangulation is described more fully in the verification methods addressed later in this chapter.

Data Analysis Procedures

Data analysis for the study embraced an inductive procedure. This inductive or generative process signifies that "the units of analysis or data segments are not predetermined, but are carved out from the data according to their meaning" (Tesch, 1990, p. 90). Therefore, the analysis was conducted without any preset categories in mind; rather, categories, themes or patterns were allowed to emerge as the analysis procedure evolved.

Following the method used by Partington (1995), the inductive process commenced with several deliberate readings of the interview transcripts procured during

the course of the investigation. This period of deliberate reading was necessary to establish a coding scheme, as explained by Bogdan and Biklen (1992):

> As you read through your data, certain words, phrases, patterns of behavior, subjects' ways of thinking, and events repeat and stand out. Developing a coding system involves several steps: You search through your data for regularities and patterns as well as for topics your data cover, and then you write down words and phrases to represent these topics and patterns. These words and phrases are *coding categories*. They are a means of sorting the descriptive data you have collected... so that the material bearing on a given topic can be physically separated from other data." (p. 167)

The themes or categories that initially emerged required refinement as the analysis proceeded (Miles & Huberman, 1994; Tesch, 1990). As well, the data segments, or meaning units that resulted from the analysis were tagged with more than one code if they fit into more than one subcategory (Bogdan & Biklen, 1992).

Once the coding process was exhausted, the analysis then required an interpretation of what had been discovered (Tesch, 1990). As explained by Tesch, this necessitated a review of patterns or themes that frequently appeared, those recurrent commonalities which described the problem under investigation, or in this case, the reality of what a golfer thought of and experienced during tournament play. Alternatively, the data analysis revealed some uniquenesses, some elements that only defined the experience of one or two golfers. In any event, as Tesch concluded, the object of this process was to identify the fundamental structure that best described the problem being examined.

Having a good idea of what was required did not ensure that this novice qualitative researcher would initially analyze data in a logical, systematic manner. A period of trial-and-error had to be endured before a procedure was developed that made sense, and

accomplished the objectives of the data analysis. Specifically, the process unfolded as follows.

The initial step was to read through the transcripts and separate thoughts preceding a shot from those following a shot. In re-reading the transcripts, the pattern of whether a shot was successful, mediocre, or unsuccessful was one that helped make sense out of the abundant information. Thus, in the first reading, the cognitions that preceded shots were isolated, while the second reading served to identify the nature of shot outcomes. A subsequent reading was required to interpret the thoughts preceding the various shot outcomes. At this point tags were written in the transcript margins as to what process occurred prior to each shot.

Another run through the transcripts was made to draw out only those thoughts that preceded successful outcomes. The tags were listed, and a tally kept as to which golfer made allusions to each tag, on which hole, and on which shot. Therefore, when the listing of all successful shot tags was completed, each tag was referenced with the golfer who described the concept, the hole where the successful shot occurred, and the shot to which the tag pertained. For example, (G1,16,P1) signified a reference made by golfer number one, about the first putt on the 16th hole. Similarly, (G3,1,3) referred to golfer number three's third shot on the first hole.

The process was repeated for mediocre and unsuccessful shot outcomes, and once completed, the transcripts were put aside. Several days later, the entire procedure was reiterated, to ascertain whether the initial tags still made sense and were accurate.

Thereafter, the numerous tags, now referred to as subcategories, were bundled

into larger units that represented their commonalities. These were termed categories. From there, the categories were further grouped into themes. The distinctions according to shot outcome were maintained throughout the process, and were labeled dimensions. Thus, the structure levels progressed from subcategory, to category, to theme, and finally, to dimension (Eklund, 1996).

Verification

Various procedures were invoked in this investigation to address the issues of internal and external validity, and reliability (Creswell, 1994). Hanson and Newburg (1992) preferred to use terms more reflective of naturalistic inquiry, than those historically accepted in the positivist paradigm. Thus, credibility, transferability, and dependability were used by the authors to replace the terms' respective counterparts from the quantitative research method.

Triangulation, the use of multiple sources to obtain complementary information (Hanson & Newburg, 1992), was one of the strategies used to ensure the internal validity or credibility of the data (Creswell, 1994; Denzin & Lincoln, 1994; Hanson & Newburg, 1992; Miles & Huberman, 1994). The methods of data collection used were videotape, observations, and interviews, the products of which helped to verify the study's findings, by cross-method comparison. The authentication of informants' thoughts is difficult to achieve. As stated by Calderhead (1981), it had to be taken largely on trust that the recollection of thoughts by informants was truly a reflection of what occurred during the round of golf. Although the methods of videotaping and observation could not validate the

thoughts that were collected in interviews, the former two techniques did serve to confirm the circumstances, manner of play, and reactions discussed by the participants.

Another mode of verifying internal validity was achieved through member-checking (Creswell, 1994; Hanson & Newburg, 1992). In this way, the participants played a role in sanctioning the accuracy of the data set, which is regarded as the most essential technique to establish credibility in a study (Hanson & Newburg, 1992).

Member-checking first occurred during the interviews, and was an ongoing process. Paraphrasing or interpreting the informants' words was a means to confirm that a correct understanding or interpretation had been assessed (Hanson & Newburg, 1992).

The second mode of member-checking was through confirmation of individual case reports, derived from the analysis process (Hanson & Newburg, 1992). Included in a package sent to each informant, the case report (see Appendix E) contained a short biography of the golfer, and a summary of what transpired throughout the round. The latter contained numerous, lengthy excerpts from the interview transcripts. This personalized report also contained a graph of the player's round, and a table which documented every shot the player hit. Each respondent was asked to attest to the accuracy of the documents and, for this purpose, was sent a confirmation form (see Appendix F) and a stamped envelope. All confirmations were returned, the majority of which required no modification. However, one respondent requested, should excerpts from his transcript be used, that they reflect proper English, rather than abbreviations or slang commonly used in conversation.

Code checking was another strategy used to verify the data. Although less systematic than the formal intra-coder method described by Miles and Huberman (1994), code checking was similar in that the coding procedure was reiterated several days after the first run through this process. In fact, each time an excerpt was read proved to be an opportunity to assess the accuracy of category tags. Therefore, in numerous readings through multiple drafts of this thesis, code checking was a recurring process which continued until the final copy was submitted.

Finally, a peer examiner (Creswell, 1994) was included in the data analysis phase of the project, to assist in validating internal consistency. Another researcher familiar with the process of qualitative data analysis, was requested to verify the segmentation of data by reading through portions of all seven transcripts, while assessing the category tags that had been assigned to the meaning units. Any discrepancies between original tags and the peer examiner's interpretations were discussed, so that a common understanding was attained.

External validity, or transferability of the study's findings (Creswell, 1994; Hanson & Newburg, 1992) was limited since the research was conducted under a very specific set of circumstances. This study told a contained story, and described the realities put forth by a particular group of golfers, in a particular context. Hanson and Newburg contended that it was the researcher's position to provide thick description, or details of context and the conditions under which the study was conducted, but that the responsibility of determining whether findings were applicable to other settings rested with the reader.

The opportunity to replicate the current study is virtually nonexistent, due to the uniqueness of every variable that characterized each data collection situation. This makes the issue of reliability questionable. However, Creswell (1994) suggested that the inclusion of sufficient study details would make replication more plausible. Hence, Creswell supported the use of thick description for this purpose, just as Hanson and Newburg did to establish transferability, as explained above. Creswell (p. 159) contended that statements pertaining to "the researcher's positions--the central assumptions, the selection of informants, the biases and values of the researcher" contributed to the reproducibility of the study. These statements, in addition to the detailed description of the data collection and analysis procedures, have been outlined in earlier sections of this chapter.

Researchers working from a qualitative approach must offer means to verify what they have done, as well as what has been found, but cannot hope to objectively prove the trustworthiness of their efforts. Verification, then, remains an interminable challenge to qualitative researchers, for "[t]heir data, their method and their integrity make an appeal for belief, but the validation comes from the reader" (Locke, 1989, p. 4).

RESULTS

The suitability of stimulated recall interviews as a means to collect data in the current study was immediately apparent. The free-flowing style that characterized the interaction meant that the informants were given the opportunity to fully express what was important to them while they recalled their rounds. Consequently, a great volume of data was generated--approximately 250 single-spaced pages of interview transcripts. Since these transcripts contained such a richness of information, it was a challenge to accurately reduce the data into a representation that would neither overwhelm readers, nor rob them of important details.

The results of the data analysis process are depicted by the diagram in Figure 1. This schematic representation organizes the concepts which emerged from the data. An exploration of the components of the figure reveals that two dimensions have been displayed. These dimensions, or the left and right halves of the figure, starkly contrast each other. The left half of the model denotes the results that pertain to successful shot outcomes, while the right half embodies the results that pertain to unsuccessful shot outcomes.

The frequencies with which thoughts were cited are illustrated in Table 1, where each subcategory has a corresponding tally of meaning units. Each meaning unit represents a concise, expressed idea. As well, the number of golfers who communicated those thoughts is shown in a second column. This display establishes both the persistence and depth of the data by clarifying how often concepts were proposed, and by how many participants (Eklund, 1996).

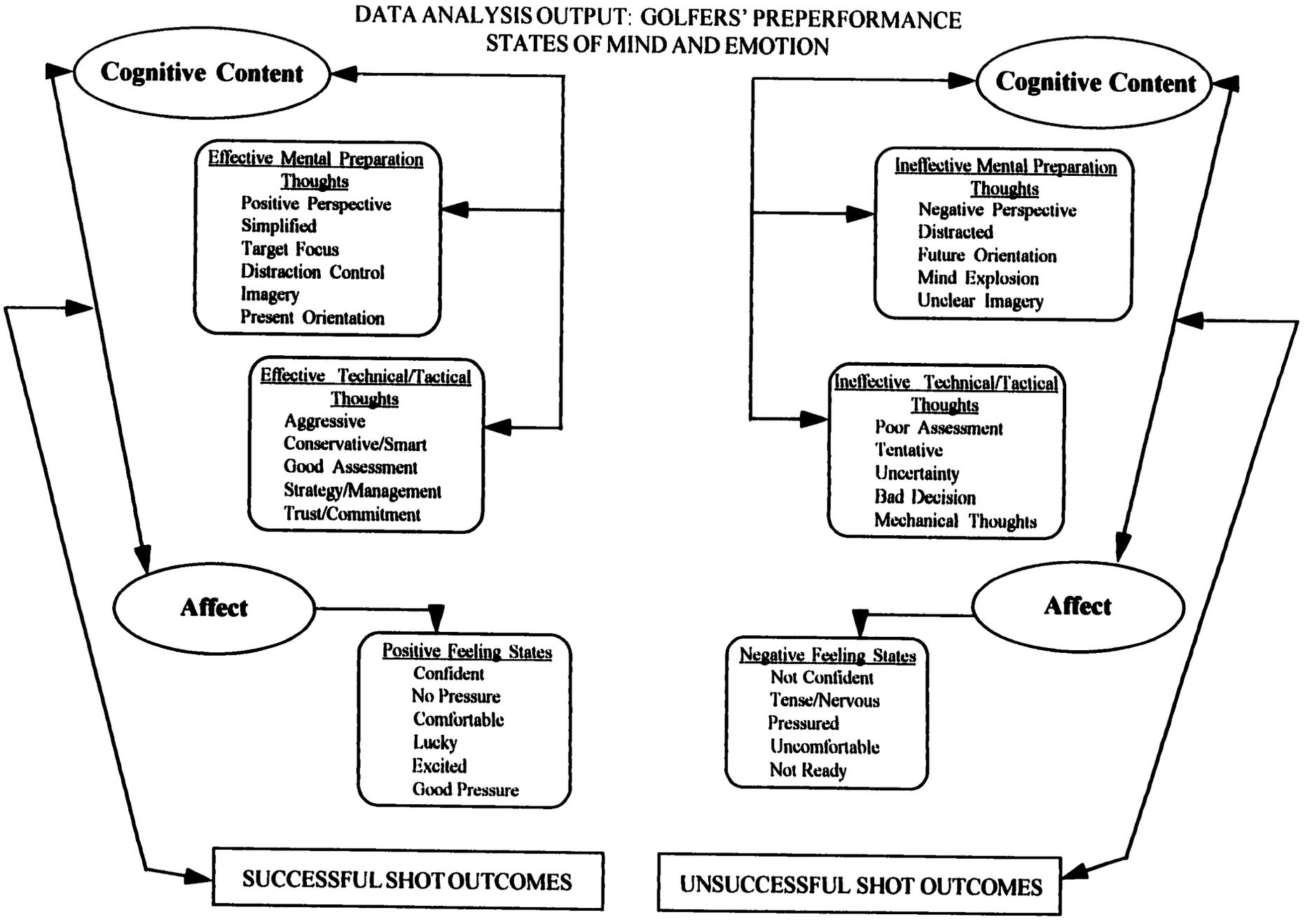

Figure 1. Schematic representation of data analysis output.

Table 1

Observed Frequencies of Meaning Units

DIMENSION **Themes** Categories Subcategories	Number of Meaning Units	Number of Golfers
SUCCESSFUL SHOTS	249	
Cognitive Content	175	
Effective Mental Preparation Thoughts	100	
Positive Perspective	33	7
Simplified	22	7
Target Focus	20	5
Distraction Control	10	5
Imagery	10	4
Present Orientation	5	2
Effective Technical/Tactical Thoughts	75	
Aggressive	22	7
Conservative/Smart	20	7
Full Assessment	15	5
Strategy/Management	11	4
Trust/Committment	7	4
Affect	74	
Positive Feeling States	74	
Confident	46	7
No Pressure	16	5
Comfortable	8	5
Lucky	2	2
Excited	1	1
Good Pressure	1	1
UNSUCCESSFUL SHOTS	149	
Cognitive Content	118	
Ineffective Mental Preparation Thoughts	42	
Negative Perspective	24	7
Distracted	7	3
Future Orientation	4	3
Mind Explosion	4	4
Unclear Imagery	3	1
Ineffective Technical/Tactical Thoughts	76	
Poor Assessment	34	6
Tentative	15	6
Uncertainty	15	6
Bad Decision	9	4
Mechanical Thoughts	3	2
Affect	31	
Negative Feeling States	31	
Not Confident	11	4
Tense/Nervous	8	5
Pressured	7	4
Uncomfortable	3	2
Not Ready	2	2

The combined data presented in Figure 1 and Table 1 provide a more complete picture of the study's findings. As mentioned, two major dimensions developed from the inductive approach to data analysis. These were successful shot outcomes, with 249 associated meaning units, and unsuccessful shot outcomes, with 149 associated meaning units. Within each dimension, the two themes of cognitive content and affect emerged. In both dimensions, meaning units pertaining to cognitive content were more numerous than those pertaining to affect, as the numbers in Table 1 confirm. From this point, the two dimensions began to differ with respect to the categories and subcategories that represented the data. Within the dimension of successful outcomes, the categories and subcategories had distinct overtones of positiveness, whereas those of the other dimension, unsuccessful outcomes, had pronounced negative connotations.

To comprehend the entire data analysis output, it is helpful to initially look at its individual components. Thus, the presentation of results continues by defining each dimension, and subsequently, its themes and categories. Within each category, the subcategories are described, and to promote further understanding of these concepts, excerpts from the interview transcripts are included wherever possible. In several instances, an excerpt illustrated more than one subcategory. To avoid using the same quote repeatedly, it was only included in the subcategory to which it predominantly applied; additional subcategory tags were designated in parentheses. Codes, which denoted references to informants, were represented in a second set of parentheses, which also identified the hole and shot to which the excerpt corresponded. This was explained fully in the previous chapter. When an excerpt included dialogue from both the subject and

the interviewer, the letter S was used to signify the words of the subject, while the letter I was used for the interviewer's words.

Successful Shot Outcomes

The outcome of a shot was deemed successful if its result was what the participant wanted, and the execution of it was very satisfactory. These shots were often described by the informant in such words as, "I hit a good shot", "That was a great shot", "I hit it well", and "It ended up exactly where I wanted". There was no doubt that the participant was pleased when recounting the shot's evolution. The themes of cognitive content and affect emerged from this dimension of successful shot outcomes.

It is important to emphasize that these themes were not absolute or clear cut. This lack of mutual exclusivity meant that one theme may have been effected through the other, or may have been a result of the other. Despite this interplay, the strength of one theme usually prevailed.

Cognitive Content

The theme of cognitive content encompassed the actual thought substance or the nature of thoughts related to the process of readying for a shot. It was further divided into the categories of effective mental preparation thoughts and effective technical/tactical thoughts.

Effective Mental Preparation Thoughts

Cognitions in this group were closely linked to the psychological training skills that characterize performance education. It included thoughts the participants expressly used to foster a state of mind that was conducive to playing a successful shot. Developed from

this category were the subcategories of positive perspective, simplified, target focus, distraction control, imagery, and present orientation.

Positive perspective. This subcategory consisted of thoughts which pertained to positive self-talk, including positive swing cues; the recall of favorable experiences, such as shots played successfully from a similar position; lessons from earlier play that guided the task at hand; or simply the adoption of an upbeat attitude about one's situation. Examples of positive perspective thoughts follow:

> S: ...And I said to myself whether I draw the ball or fade the ball, I'm still gonna be in the fairway. Even if I'm in the rough, there's no problem with this... and all I wanted to do was make a good shoulder turn, stay on the ball and...
> I: Do you say those things to yourself?
> S: Oh yeah. "Shoulder turn" has been with me for 12 years... and "slow", a slow backswing. (Positive self-talk - swing cues) (G3,1,1)

> I: ...oh yes, you were in the bunker...
> S: [With an] excellent lie; actually it was, they must have just watered the fairway I was 122, 123 yards to the middle of the green, and I'm very comfortable with that shot because, again, I've played it many times at my home course and just reflected on the shots on a certain hole that I'd hit there. And it was exactly the same type of shot so, the reflection on what I'd done previously influenced my shot on that last hole. (Good reflections; confident) (G4,18,3)

> In the practice round I hit it over the green, and I made... I mean I hit it so far over the green here with the same club. So I thought about that a little bit and realized I had to take a lot off this club. (Lesson)
> (G2,12,1)

> S: I thought I was gonna make it because I deserved it. You know?
> I: Because of all those close ones?
> S: Yeah! (Positive thinking) (G6,17,3)

> It's just a terrible drive. But, I take the positive side. I've got a shot, I'm in play, and my friends are in trouble... (Positive perspective) (G3,16,2)

Simplified. Simplified referred to the participant tapering his perspective from a broad, perhaps overwhelming one, to one which contained the one or two very simple

factors which were most important. In this manner, the participant attended to the basic elements required to successfully execute the shot under consideration. The following illustrate the essence of this subcategory:

> The next hole is a fairly good par three. The tees are raised, the green is raised. There's a little dip in between. I think there's three tiers, or maybe two tiers. I think it's two tiers, and I did hit it up on the second tier. The wind was starting to affect the game, it was coming right across, and probably doing 25 mph or something like that. So, it really got into my mind. You're hitting shots... Usually from where I was, I would be hitting an easy wedge, and I think I hit a really good eight iron there. And I had to cut it over trouble too, to get it anywhere near the hole. But what I was thinking about only on that hole was getting it on line, and getting it on the right tier. (Simplified) (G1,6,1)

> Normally I'd get a little out of control and think, I'm just going to hammer this ball. You know, get a bit frustrated [from two bogeys]. But today I was good. I just said okay, just hit a nice solid drive. (Simplified) (G6,17,1)

> So as it turns out, I was blocked a bit by the tree. I had to hit it out, kind of cut it around the tree, and have 50 yards or 40 yards left to the green... So all I was trying to do here was to advance the ball and cut the shot a little bit. And that's what I did. (Simplified; no pressure) (G2,1,2)

> Hit it straight and go from there. (Simplified) (G5,3,1)

> ...I'm thinking for me, for my swing, just put a good swing. That was it. (Simplified) (G7,8,1)

Target focus. When recalling their thoughts, many participants expressed how essential the concept of target was in preparing for a shot. This target focus is described in the subsequent excerpts:

> Third hole, it's a really wide hole. So, I took a driver. It's short, but I just hit a driver. The danger of that is when it's that wide, the danger is you're just going to stand up and drill it. So, I got up there and I picked a small target, a tiny target, and tried to hit it right at it. And again, if it doesn't go right at it, you're thinking, damn, I didn't hit my target, but then you get down there and it's pretty good. (Target) (G6,3,1)

> ... So I had 265 in. And it was a bit of a scary shot, because there's the woods on the right, and bunker and big slope down the left. But on those scary ones, I just

try and pick a tiny target and hit it right at it. And that's what I did today. I hit three wood, knocked a three wood right on the green. (Target focus) (G6,4,1)

So, I choked down on this one, and just tried to rip it. It is a difficult shot to get comfortable on this hole though, because there's no real defined target. You've just got to kind of invent one. (Target) (G2,17,1)

S: The 12th hole? Basically, it's as open as a driving range...
I: Do you swing differently when it's open like that?
S: I try to control the fact that I shouldn't be over swinging because it is so wide open. Again I focus somewhere on a target and try to hit that target, even when it's wide open. I had just played in (place), and it was very easy at the course that we played up there to lose your focus, because it was so wide open. And it taught me a lesson there that on every shot you've got to try to focus on the target and do your best to try to swing at the target... So, I still work hard to pick out a target and focus on the target with my tee shot. (Target; lesson) (G4,12,1)

Seventeen, it's a short par four, and it's a dogleg right. You can hit it over the corner easily there. Carry everything. I just teed it up and aimed it exactly at the tree, trying to carry it over. (Target; aggressive) (G5,17,1)

Distraction control. Whether precipitated by internal or external sources, several thoughts often competed simultaneously for a participant's focus. Distraction control was the process used to block out extraneous thoughts so that the participant only attended to relevant cues before hitting a shot. Instances during which this type of thought was expressed were,

S: The second hole... Always kind of my nemesis hole a little bit. So, I was trying to get incredibly focused on the tee. And tried to make as smooth a swing as possible... I'm just trying to eliminate all distractions, and trying to get into a situation like if I'm in practice, and it's just me and no tournament, nothing, and just feel the swing the way I feel it sometimes in practice. So that's what I was trying to do on this shot, because I knew this was going to be an important shot. Yesterday I hit it a million miles to the right, even though I was off balance, and the wind was going and all that type of stuff. But, I mean, I made a triple bogey on this hole yesterday, so... Plus, it's a key hole on this golf course, because it ruins a lot of rounds, this hole.
I: Were any thoughts of yesterday filtering in there while you were on the tee?
S: Oh yeah, lots of them. And it's a tough hole because there's OB to the left; my tendency is to draw the ball a little bit, so I don't want to overdraw it left. And then right is no good either so... I mean, you basically have to stand up on this

hole and hit a good shot. There's no bail out... I wasn't tremendously confident over this shot, so I tried to just put it on autopilot and let the swing do the work... [Watching the film] Yeah, I'm thinking about everything under the sun right here. So now I'm trying to block everything out and just telling myself to let the swing take over, basically... Just let it take over and don't worry about it. (Distraction control; imagery, trust, positive self-talk) (G2,2,1)

So now, I'm short and I've played the fourth shot already, and I have a tough chip shot. It's a right to left, downhill. I've got a good lie, and I'm comfortable about my chipping game. I thought I hit a great, great chip. It ended up six inches from the hole, and tapped it in for a double. So, I remained calm. I said you hit a bad shot, you hit a couple of bad shots, so stick with it and take your double and leave quietly, that's all. (Distraction/emotion control; positive thoughts, self-talk; confident;) (G3,7,5)

Getting to the fourth hole, again thoughts from yesterday came into mind. I hit not a very good tee shot yesterday on the par 3 and I was very conscious of that today. The pin was somewhat of a sucker pin, what I consider to be a sucker pin, it was way back, way back right and...I just basically wanted to keep the ball below the hole, anywhere below the hole and put a good swing on the shot. (Distraction control; strategy; simplified) (G4,4,1)

Imagery. Some participants related how they had attempted to create a picture in their minds of what they wanted to accomplish with a shot. There were varying degrees to which this skill of visualization or imagery was developed within the sample group. A few references were made to feelization in addition to visualization.

S: ... So, I had it completely in my mind, not from the day before, but I knew exactly where I was going to hit that.
I: Do you actually visualize the spot, or do you visualize the flight of the ball?
S: Yes, all of that. Not all the time, but on that particular shot I did... (Imagery) (G1,1,2)

I was trying to hit it right at the flag and make a birdie... right now I'm just trying to see this wedge fly through the air. In the end, I hit it a little higher than I visualized it, but it worked out pretty well. (Imagery, aggressive) (G6,1,2)

... I'm trying to picture the shot, and trying to feel myself going around the tree - feeling the shot go around the tree. Because, I had to really cut this a lot, and hit it low. (Imagery - with feel) (G2,4,2)

I: On these more finesse shots, are you saying something to yourself, some kind of cue or reminder?
S: Well, on these little shots, I've practiced this year, and I'm thinking clock-wise. I know 50 yards is hip high, 60 yards is slightly above hip high, 40 yards is just short of hip high. So, three o'clock, two o'clock, four o'clock.
I: So, you pick out, you see it in your mind how far back you'll take it?
S: Yes. And I trust that. And I've got to tell you, it's been good to me so far. Since I've been trusting my feeling about it. (Imagery; trust) (G3,5,3)

Present orientation. Present orientation included thoughts of remaining patient despite what was transpiring, or focusing on the process of making the best shot or stroke possible, without thinking about its outcome or significance. The following quotes clarify what was meant by this subcategory tag:

> Plan on the tenth tee was to try to block everything out and just try to hit a good shot. That's all you can do. One shot at a time... I was just trying to stay patient... Ten was a real good shot off the tee. I hit 2 iron, and I had about, oh, in the neighborhood of 100 yards left to the green. (Present orientation; conservative/smart) (G2,10,1)

> I think it's a five-footer. Yeah, it's in the neighborhood of five feet. So, I just wanted to put as good a stroke as I could on it, whether it went in or not. That's my main concern on this one. (Present orientation) (G2,18,P1)

Effective Technical/Tactical Thoughts

Thoughts in this category centered on mechanical adjustments that were required, or decisions that had to be made about the best shot to play in view of the context at hand. As such, physical and environmental variables needed to be considered in harmony with the participant's abilities, experience and convictions. The emergent subcategories were aggressive, conservative/smart, good assessment, strategy/course management, and trust/commitment.

Aggressive. Aggressive referred to the decision of going after a birdie, or trying to set up for a sub-par result on a hole. This often involved taking a somewhat riskier attack,

with the potential rewards serving as incentive for the decision. Sometimes the resolution to attack was made even prior to the round's commencement, when the participant was aware that certain holes were amenable to this type of approach. At other times the decision was made based on how the participant was playing to that point, fueled perhaps by the momentum of successful play.

> I was trying to hit it right at the flag and make a birdie... (Aggressive) (G6,1,2)

> The object of the game on this hole is to blast your tee shot as far as you possibly can because there's no trouble anywhere. So you just smash the shit out of it... I'm just aiming down the fairway and swinging hard at it, and just letting it go... plus, I know I want to birdie the last three holes, so I'd like to hit the ball from the fairway so I can try to get the ball close to the hole. That's the thought on this hole. (Aggressive, trust) (G2,16,1)

> Again, very aggressive, I targeted myself to the pin, not trying to play left or right or short, tried to focus right in on the pin... (Aggressive; target) (G4,17,2)

Conservative/smart. Frequently when the circumstances were evaluated, a decision was made to take a more conservative approach. In these cases, the participant might have had thoughts that the potential rewards did not merit the gamble, or that his play could not be relied upon to take anything other than a conservative route. Alternatively, this was referred to as making a smart decision.

> ...Ten is a type of hole that I know that if I hit driver, and if I'm hitting driver fairly well, I usually would, it's driveable for me... But there's trouble left, so you can't go left. Traps right, slight dogleg right. And I know that the further I go down, the more trouble that there is... And I hit five iron right down the middle... exactly where I wanted to. (Conservative/smart) (G1,10,1)

> Seven... Iron off the tee. It's not a driver hole. Just put it down there. (Conservative/smart) (G2,7,1)

> The second shot, I'm trying to hit driver from the fairway, but I have a downhill lie, so I said no. So I backed off and took a three wood... And you can tell now I'm taking a look with my driver, and I don't like my shot, my stance. So

I say, play safe, you can't reach it anyway. (Smart/conservative; good assessment) (G3,5,2)

The second shot was the type of a shot where again, what I consider a sucker pin. Very, very back right up on the second tier, too much club gets you into all kinds of trouble. And that's the last thing I wanted to do was to get above the hole and get myself into trouble. I thought I was hitting the club that would have gotten me to the second tier but not over the green. (Conservative/smart) (G4,12,2)

Looking at it for the second shot, I'm trying to remember how the hole goes around...because there's a row of trees between me and the hole. I know it sweeps to the right a bit, and I think it comes back. I don't know exactly how far. I don't remember where the rough is. So I'm trying to hit a three wood, which I know I can hit three wood safely without getting into the ditch. And I don't know whether I have to draw it around or just hit it straight. So, I figure if I hit it straight, I can't get it in the trees anyways. So at worse I'll be in the rough somewhere. (Smart/conservative) (G5,10,2)

Good assessment. Thoughts in this subcategory revealed that the participant's knowledge and perception contributed to a thorough assessment of the circumstances, which subsequently set the stage for a skilled shot execution. In this manner, the participant evaluated all the intervening factors so that decisions about club or target selection, and swing alteration were accurate.

S: ...there in fact I was back in another divot. I didn't have a very good lie there at all. But I knew I could get out of it just as long as I stayed down on the ball. So I originally had a wedge out, and I remember changing clubs back down to a sandwedge.
I: Why did you make that decision?
S: The decision was that because the lie was tight, or in the divot, I knew I had to hit the ball first. And if I was going to hit the ball first, I knew it was going to fly a little bit longer than a normal shot. I almost half sculled the ball, and that's the way I had to play it. And if it's going to fly, the last thing I want to do is go long. So, I hit the sandwedge. I hit it perfect...
(Good assessment) (G1,10,2)

Seven, we have a wind cutting across us, it's probably about 160 or 158 or something. So I decided to take an eight iron, and knock it down a bit, keep it under the wind, and just try and draw it in there. Draw it into the wind and have it keep it straight, and let it fall a bit to the right. (Good assessment; smart) (G6,7,1)

> And I read it well. It looked like right to left, but I know everything goes left to right on that green, and I decided to play straight. It was the perfect decision, it went right into the middle of the hole. (Good assessment) (G3,9,P1)

> ...I had that hundred yard wedge, and knowing the pin was back on the right plateau, which meant possibly an extra four or five yards past center, I knew I had to hit the hundred yard wedge a little bit harder. I was in the rough slightly which I felt would compensate for the extra distance. (Good assessment) (G4,17,2)

> ... I'm just focusing more... I'm thinking, analyzing, making sure I haven't overlooked something. Cause, I had a really, really bad lie there. I'm thinking, how's it gonna come out... (Good assessment) (G7,17,2)

Strategy/management. When a participant recounted thoughts that pertained to how he wanted to play a hole, or how the current shot should be played to be in the best position to play the next one, he described thoughts in the strategy/management group.

> ...What I was trying there was just trying to get within sandwedge range. And that's exactly what I did. (Strategy/management) (G1,10,1)

> Well, it's a pretty short hole and there's out of bounds to the left, so I was just hitting one iron, just for position. Just trying to hit the fairway. All I had to do is hit it solid and I knew I'd have a wedge in. (Strategy/management) (G6,1,1)

> I also on the tee, look at where the pin is on the green, if it's left or right. I try to play to the widest part coming into the pin if I can. I don't hit the ball perfectly all the time obviously, but I do try to make the second shot easier by playing to one side of the fairway or the other. (Strategy/management) (G4,2,1)

> I: ...So you've just blown it into the river.
> S: Uh huh.
> I: You're trying to collect your thoughts, your composure as you walk to the drop area?
> S: I'm thinking of trying to make it a bogey. I'm trying really hard to keep the ball into, or put the ball into a position where I can possibly make a bogey. (Strategy/management) (G4,5,3)

> I get there and my ball's about 275 from the middle of the green. So I figure if I can hit a 180 yard shot, I'll have about 100 yards in. So I took a four iron... trying to get just around 80, 85 yard shot, again a little punch wedge shot that I can hit. (Strategy/management) (G5,18,2)

Trust/commitment. Here a participant likely voiced the notion that he had to put all other thoughts aside, particularly those of doubt, and trust what he had programmed his body to do through previous years of practice and play. Similarly, this subcategory included thoughts of a participant trusting how he had assessed a situation, and staying committed to his initial decision on how to proceed.

> ...So it was quite a while before I hit the putt, but again, it was one of those putts I didn't look at three different ways. I knew the line right away... as soon as I get up to the green, I'll mark the ball, and I'll have a look. And if there's something that I like right there, I won't even question it. Don't even look at it. And when I got back to the ball maybe five minutes later, I saw it again... I saw the line right there, and I said just hit it right there and it will go in. (Committed, positive self-talk, confident) (G1,10,P1)

> Well, with the second shot, the five wood, I knew I had the right club in my hand. I know I hit the five wood 220 to 225, and the ball was at the 225 marker. (Trust) (G4,11,2)

Affect

The theme of affect referred to the states of emotion that embraced the participants as they prepared to execute certain shots. Within the dimension of successful outcomes, affect was clearly characterized by positive feeling states.

Positive Feeling States

As suggested by the category name, these states of emotion that the participants described were good ones, and incorporated the subcategories of feeling confident, no pressure, comfortable, lucky, excited, and good pressure.

Confident. This was the most frequently expressed concept of the study, as evidenced by the number of associated meaning units, namely 46 (see Table 1). It was conveyed in the sense of knowing or believing in one's abilities either from other rounds

or from previous shots on this day, and feeling sure that one's skills were sufficient to meet the challenges of the task at hand. Thoughts of confidence were clearly a reflection of all the playing and practice time each of these participants had logged over their golfing careers, and how they viewed those experiences.

> I'm pretty good at hitting the ball right to left, left to right, low, high, wherever I want. Not that it always happens. But I know I can do it. And I knew I had a bit of a flyer lie coming out of the rough, so for me it was a pretty easy shot... (Confident) (G1,1,2)

> Because it was windy today, and we were into the wind on the first hole, I was just trying to keep everything low. Because, I know I can spin the ball, and if I hit the ball the way I want to, I can hit a sandwedge about 10 feet in the air and still make it stop. (Confident) (G1,1,3)

> I'm pretty sure of this one for some reason. I know this one's going in. (Confident) (G6,13,P1)

> And when I get there, I've got an impossible chip shot. But I'm confident about my chipping. (Confident) (G3,17,3)

> And again, after the good swing on the tee, I knew I could put another good swing on the five wood. (Confident) (G4,11,2)

> That put me in the left bunker, but I'm a good bunker player, so it didn't bother me. Usually I can put it close by from that kind of bunker shot. (Confident) (G5,2,3)

No pressure. Thoughts of this nature conveyed a willingness to accept whatever consequence the participant's solid effort might produce, without demanding particularly superior or perhaps idealistic results.

> If the putt goes in, it goes in; if it doesn't, it doesn't. (No pressure) (G1,6,P2)

> The thought on this hole is, be happy with a birdie, but par is good score. Because it's a pretty long hole, in that you can't hit a driver and it's into the breeze. (No pressure) (G2,15,1)

> My first tee shot, just get the ball in play somewhere to have a chance in making an easy par, not really thinking about birdies that early in the round, if they come

> it's a bonus. But definitely to get a couple of pars under my belt before getting to the more difficult golf holes. (No pressure) (G4,1,1)

> Because I have a tendency, 100 yards in, I try to hit it in the hole. And if I'm not in the hole, I want to break the club. So, I'm thinking now, don't put too much pressure, put a good swing and let the ball end up where it's gonna be. (No pressure; simplified;) (G7,9,2)

Comfortable. Each participant related some thought about their feeling comfortable prior to executing a swing. In most instances this feeling was associated with a physical sense of being at ease. This good sensation may have been due to an impression of correctness in the participant's grip, set up, or stance for example. Feeling comfortable may also have referred to being at ease with the characteristics of a shot with which a participant was faced.

> ... Because once I got up to the ball and addressed it, I felt very comfortable. (Comfortable) (G1,11,1)

> I like this drive as a driving hole, I feel comfortable on the tee. I normally make a good shot here. (Comfortable; confident) (G2,13,1)

> ... I'm comfortable, I just want to make a good swing, and put it near the cart path... (Comfortable) (G3,5,1)

Lucky. A couple of participants revealed notions about feeling lucky, either from getting a lucky break from the rules, or from nature, i.e. the golf gods.

> And I got a lucky break in that because of all those obstacles on the right hand side, two different rulings. I was able to get a favorable ruling so that I could drop it on the third tee and chip it up. (Lucky break) (G1,2,2)

> ... I feel lucky to have a shot after that ugly tee shot... (Feel lucky) (G3,16,2)

Excited. One participant expressed a feeling of being excited, or pumped up, in anticipation of what lay ahead.

> At this point, I'm pumped. I've got the adrenaline going, thinking I'm not going to bogey this hole... (Excited) (G7,17,2)

Good pressure. This same participant admitted to enjoying having pressure in certain situations, feeling that he benefited from it.

I: So, you know, this is a pretty big putt.
S: (Partner) has putted. He's missed. I have to make it.
I: Is that usually a good thing for you, knowing that you have to make it?
S: Oh yeah! (Good pressure) (G7,17,P1)

Unsuccessful Shot Outcomes

The outcome of a shot was deemed unsuccessful if the shot generated an unfortunate or undesirable outcome. The participants often referred to "making a terrible shot", "That was just awful", or "That was the worst shot of the day", things of this nature. There was unquestionable disappointment in the effort that the informants applied, as well as in the results of that effort.

This dimension was also subdivided into the themes of cognitive content and affect, which have previously been defined. However, the categories and subcategories that emerged in this dimension of unsatisfactory outcomes clearly differed from anything aforementioned. The dominant tone here was unmistakably negative.

Cognitive Content

Ineffective Mental Preparation Thoughts

Thoughts within this category differed considerably from those of the effective mental preparation category in the successful shot dimension; they were in fact direct opposites. The subcategories which emerged here were negative perspective, distracted, future orientation, mind explosion, and unclear imagery.

Negative perspective. There were several ways in which a negative disposition overtook a participant's perspective. Informants often reminded themselves of their

performance shortcomings, and engaged in denigrating self-talk while trying to prepare for a shot. As well, informants often recalled the occasions when shots were mishit. Hence, the concepts of negative thoughts, negative self-statements, and negative reflections of previous play were included within this subcategory. These concepts are each represented in the following:

> ... And it's a hard shot, a downhill lie, but I don't like the traps here either, so it's something negative too. Because, if you've got consistency at other courses... You just want to have consistency throughout the course. When I played the practice round, it wasn't consistent, and I knew that some could be deep, some could be not, some could be you know, so you're almost, you're not sure, it does affect how you hit the ball... (Negative thoughts) (G1,16,3)

> And then I thought to myself well, this will be nice if I bogey this hole... I mean, now I'm thinking to myself, good work. You've got ... an easy birdie, and now you're going to have to struggle to make five. I'm thinking, Jesus, you're missing putts left and right on the last couple of holes, and now you're gonna screw this one up. (Negative thoughts) (G2,18,4)

> ...and then all I had in my mind were negative thoughts, on that short putt, foot and a half putt... I said, don't miss it left, because I have a tendency the last couple of years to have a closed blade when I putt, so I have to push it to make it... Negative, negative, negative..... And I'm not confident on that putt. Man, oh man, oh man. I knew I was going to miss it. (Negative thoughts; not confident) (G3,12,P1)

> And I'm thinking, just hit a good tee shot. And don't leak it right, 'cause I have a tendency to on that tee, from that tee, leak the ball to the right, which means coming off the shot... And that's again when I'm thinking don't leak it right, the hands or the body motion tends to take over, and I end up hitting an ugly shot. (Negative thoughts/reflections) (G4,18,1)

> I just hate that ------- hole so much. I've been in the trees, on the left, the past, I think my last six games at [place]. I might as well go dump it in the shed on the left, that's where the ball goes. I hate this hole with a passion. And where did I go? Left in the boon docks... Once again, that hole got the better of me... I hate that hole. I hate it, I hate it, I hate it. (Negative reflections) (G7,14,1)

Distracted. A few of the participants had thoughts prior to performing a shot which were distinctly unconnected to, or which interfered with, the requirements of the task at hand. These may have emanated from something seen or heard, or from an internal source. In any event, these thoughts lingered in the players' consciousness instead of being blocked out. Such things are depicted in the ensuing examples:

> And when I lined up the putt, and you want me to be honest right? I'm lining up the putt, and my thought was, I gotta show (researcher) I can make one. Because up to that point I'd been horrible. And I said, come on, you're a good putter. Just show her you can make one... And I wasn't upset at missing the putt as such, I was upset at my stroke process on that putt. My concentration process was not what it should be. Not the fact that it was (researcher), because I'll do the same thing sometimes, okay, let's show these guys I can make a putt. And that's not my usual thought before I putt. I have the same thinking process, I'm a good putter, I can put it in, let's do it, things of that nature. But not, let's show these guys, or let's show (researcher) that I can make a putt. I mean, I hate it when I do that. But it happens. (Distracted) (G5,7,P1)

> And we waited a long time, and that hole I'm thinking, four under we're in for sure. It was bad thinking on my part. But I figured, four under we're in definitely, and I'm not gonna leave it short. But I'm also thinking, don't ram it six feet by the hole, and miss it coming back. That's my thought. Boom. Where does it go? Six feet by the hole...if we hadn't been in match play or whatever, I would have two-putted 9.9999 times out of 10. But that, I was aiming for three. Cause, I know that 4 under, we're in. I didn't focus and take the time I should have taken on that first putt. (Distracted; pressure; negative thoughts) (G7,18,P1)

Future orientation. Future orientation referred to thoughts of outcome rather than process, or in other words, score. Sometimes this was carried beyond the score on the present hole; thoughts would accelerate from the score on a particular hole to its impact on the round, to the round's impact on position in the tournament, to the tournament position's impact on the next day's starting time. Several participants alluded to similar thoughts, as explained in the following:

> S: I get a little frustrated, and I lose track of what I'm trying to do, and I hit a bad shot. So that's a mental error right here. I just go ahead and hit a five iron and blow it miles right. So this was a careless mistake. I: Caused by the bogey? S: Caused by the frustration that I can't seem to make any more birdies. I: So, you're kind of influenced all the way along by that final outcome, that number. S: Yes. Maybe I shouldn't have done that... (Future orientation; mind explosion) (G6,16,1)

Mind explosion. A few participants referred to a mind explosion, or going blank. A mind explosion is what happened when all thoughts pertaining to the task at hand were inexplicably abandoned. In other words, there was a total lapse in concentration prior to executing the shot.

> S: ...again, put it on the wrong [side]... I hit it too firm. There, that was a big mind explosion, is the way I like to put it.
> I: What happened?
> S: I don't know. I wasn't even thinking about golf when I hit that putt... You know when you hit the ball and you say, what am I doing? I don't even know what I was doing. (Mind explosion) (G1,14,P1)

> S: And then hit a very, very bad putt. It was probably the worst putt to that point that I had hit. I was going straight uphill, little left to right break, and just went into a coma. Just never hit it...
> I: What was different about that?
> S: I just went blank. (Mental lapse, lost focus) (G4,16,P1)

Unclear imagery. One participant referred to instances when he was unable to visualize a precise picture of what he wanted to accomplish on a shot, and had to proceed without it.

> I was trying to just hit it straight in the fairway. I didn't have a picture of the shot really... (Unclear imagery) (G2,5,1)

Ineffective Technical/Tactical Thoughts

This category represents a marked contrast to its counterpart in the successful shot dimension, effective technical/tactical thoughts. In both cases, the participants considered the factors that might affect a shot, and made a decision accordingly. Within the dimension

of unsuccessful shot outcomes, however, the preparation was poorly carried out due to inferior evaluation or decision processes. This category of thoughts was further partitioned into the subcategories of poor assessment, tentative, uncertainty, bad decision, and mechanical thoughts.

Poor assessment. Due to a shortfall in knowledge, focus, or perception, there were several instances when the participants' evaluative efforts were inaccurate and produced unsatisfactory results. Some factors were overlooked, whereas others were mistakenly considered. These misjudgments are illustrated in the following:

> ...So I just came off the double bogey, so I probably have a little bit more adrenaline going. Usually when you're playing really well, or pumped up, you know, I know your adrenaline's going. But it also happens when you're mad at yourself. So I think that's what the case was there... I was aiming just for the middle of the green. The pin was in the middle of the green, middle back. But it flew on me, and it flew the green, or at least landed on the very back and ended up on a little hump in behind the green. ...I just couldn't believe that that shot had taken place. I was expecting something completely different. I was expecting the ball to be 20 feet short. (Poor assessment - regarding flier, being pumped up) (G1,13,2)

> And then I three putted because I got careless about the line on the long putt. I was thinking okay, just get the distance. But I mean, you have to get a relatively good line to get it close. And I didn't. I just got careless. (Poor assessment) (G6,8,P1)

> I hit a terrible shot. I was 115 yards but I thought I had a flier again. And I hit a sand wedge, and it just didn't come out like a flier... I left it short. (Poor assessment) (G6,15,2)

> At this point in time, I'm kind of over-reading a little bit. (Poor assessment) (G4,15,P1)

> And then I started guessing on that putt. Because I know everything falls from the mountain, and there's a bit of grain left to right on that green, but there's three or four greens yesterday we noticed the grain going the other way than the slope. And then I started trying to read it and then putting in the grain, and putting in the slope, and putting in the uphill, and putting in the downhill, and putting everything in. And then I just started guessing from that point on as to whether it's going to

> break, because I read a little break right to left, and then I thought the mountain would carry me left to right. And then I said okay, if I put in the mountain factor, I'll make more that I'll miss today, and I aimed it, instead of aiming it right center, I aimed it left center, and I didn't hit it too hard to make sure the hill would carry me left to right, and then ah... I got stuck in all of that, and then I ended up short of the hole because I just never released my stroke through it... But I wasn't happy with my thought process on that green. Too many things went through there. (Poor assessment; unsure) (G5,3,P1)

> And when I got to my ball, I had no shot. The only thing I could do was to punch a wedge...But the yardage, (partner) told me a hundred yards , and it came out hot out of the rough. So that's why it flew a little more. And I hit it in the bunker (Poor assessment) (G7,1,2)

Tentative. This subcategory referred to the thoughts a majority of participants had with respect to being less aggressive with a shot. By being cautious or indecisive, the resultant stroke lacked the fluidity of an assertive, natural effort. For instance,

> ...Now this is a bad one. I thought it might take off just a little bit. And I'm a little wishy-washy through it too. (Tentative) (G6,15,2)

> I was actually, knowing that four was a good score, I was just trying to nuzzle the ball up to the hole instead of being aggressive with it. In retrospect, I should have been more aggressive with the putt. If I had it again, I would be more aggressive. But I just tried to get it close. And when you do that, sometimes you don't get it close. (Tentative) (G2,15,P1)

> ... and what I did, I just [sound effects] babied it, and I missed it left... (Tentative) (G3,12,P1)

> S: I had a very makeable 12 footer, right to left break. And felt that at least I should get the ball to the hole. And I chickened out on it. I know how quick it is coming down that slope, and I was protective.
> I: You just didn't want to get beyond it.
> S: Yeah, I was very, very protective... And hit just one of those ugly putts like I hit on 16. (Tentative) (G4,18 P1)

Uncertainty. In this subcategory, there were references by most of the participants to being unsure of what club to hit, or being unresolved on how to play a shot prior to making the stroke. There were occasions when the participant doubted his club selection,

yet carried on with the shot. On the other hand, a participant may have felt uncommitted, or may have second-guessed his original decision on how to play a shot, when in fact his initial assessment would have been the correct one. Examples of these types of thoughts follow:

> But then I got up on the putt, and I read it to go left, about two inches left. And then I got up behind it, and I read it from behind and I all of a sudden saw this break to the right. So I second-guessed myself, went on my second guess, and it broke the way I originally planned, the way I originally thought it would. So, I missed the putt. (Second-guessed) (G6,3,P1)

> I think, for some reason I was thinking the wind was stronger than it was. And I didn't want to get going at the flag and then hook off the green. So subconsciously, I think I pushed it out to the right. But I've got to learn to just trust it. Trust that it's gonna go where I aim. On this shot I didn't. (Didn't trust club; poor assessment) (G6,11,2)

> I was just trying to really visualize the line and figure out where I wanted to start the ball. And I had it down. I mean, I visualized the ball going in, and then what do I do? I pull it a bit and I didn't think I had enough break in this and I kind of yanked it up left a little bit when I went to hit it... I wasn't committed to the line I chose. (Uncommitted to line) (G2,8,P1)

> S: ...I ran into my first mistake. I wasn't sure of the club I had in my hand and I hit a really bad second shot with a very short iron.
> I: Were you thinking of perhaps changing that club?
> S: No, I felt that I could go down the shaft and try to maneuver something out of it. I stayed with the club that I had in my hand although I wasn't quite sure if it was the right club - even knowing the yardage. (Doubted club) (G4,2,2)

> And what threw me off there is that (fellow competitor's) putt, he had pretty much the same line I had, his moved to the right. I was looking at the hole thinking, it's going to move right to left, his moves left to right. So I played it left to right, and obviously it moved right to left. (Uncommitted to line; second guessed) (G7,10,P1)

Bad decision. For reasons such as failure to go back to get the right club, a reluctance to play conservatively, or making the wrong club selection, a few participants made decisions on how to play a shot or hole that were clearly ineffective.

...I ended up parking my clubs in behind the hole, towards the next tee and had a wedge in my hand, and my putter. So when I got up to the ball, I made a different decision. I made a decision not to bump and run it like I usually would have. I wanted to land the ball up on the top plateau and just let it roll down towards the hole, which would have been still uphill. So I had the wedge in my hand, and I knew I wanted to hit the sandwedge, but it was about a 50 yard walk back to the clubs. So I said, okay, I can try and work this out. So it was a bad decision on my part... The thing is, I had the line, I had the mindset for a different club, and a different shot obviously. So when I hit it, I knew that because it's such a mound, I had to hit it into the bank, and you don't know where it's going to go. Will it bounce right, left, or what have you, instead of just landing it up top and letting it roll. So unfortunately, I hit it a little bit too hard, and ended up eight feet, 10 feet behind the hole. Again, on the wrong side of the hole, a downhill putt, on a fairly treacherous green. (Bad decision) (G1,12,2)

But I still had, not a long shot, 135 yards in the rough, a little hardpan, but all I was thinking was, well should I use a sandwedge, get aggressive and watch it fly out of this, or do I hit a nice, easy, soft wedge. Since it's elevated, I had two traps in my way. And you don't want to miss this green, or even the traps. If you do, you're thirty feet below where the pin is. So at worst, you just want to put it up on top somewhere. Unfortunately I decided to go with the lazy shot, instead of the aggressive one--the hard sandwedge. And I hit a poor shot. I hit it a little bit fat, and as soon as I hit the ground, just before the ball, the clubface closed on me and went almost, not straight left but it went left of where I was aiming. (Bad decision) (G1,16,2)

S: So, we get to the next hole, and in the back of my mind I should hit a two iron. It's a short par four and I should stay in play. Yesterday I hit a driver, and I hit it well, and now that's where I think I'm thinking wrong. My driver has been bad all day, I'm on a short hole, why should I play a driver? I should play a two iron, three iron, four iron, anything that I would be confident with...
I: So why didn't you?
S: Because I'm dumb. That's wrong thinking on the tee. That's just stupid, lack of experience, I don't know. It's just stupid... It's being hardheaded: I'm gonna teach a lesson to my driver. Sure!
I: What happened?
S: I chunked it. (Bad decision; not confident) (G3,16,1)

I was playing it for a bump and run, sort of a ball that would land, one hop, two hops and on the third hop die. But obviously that was not a good shot selection because the greens are soaking wet. You've got to fly it at the hole and it's going to die there. I hit it good, I was on line, but it was a stupid, it plugged after one hop. So it was a poor choice of shot. (Poor decision) (G7,10,3)

Mechanical thoughts. Occasionally a participant was overwrought by thoughts of a mechanical or technical nature, breaking down the swing into its specific parts. This consequently interrupted the natural flow of a skill which is highly automated for these players.

> So I feel I can get a 7-iron there easily. Just transfer my weight. That's what I tried to do, and as I hit down on the ball, I transferred my weight, but the club sort of stayed back. The arms just didn't follow through. I was concentrated more on one aspect, than just getting the weight back on my left foot, and letting the arms follow through and snap the ball. (Mechanical thoughts) (G5,7,1)

> I'm thinking very mechanical things...and then I try to take it back, and I have a feeling...like what I was thinking on the first holes is that going back to my first round at the [tournament], because I'm not confident, and I spend more time on the ball, and I was spending so much time over the ball, the more negative I am, the more time I spend over the ball, the more negative energy comes through my mind. So, that's why on the first hole, I was trying to hit it quick. And I was saying, okay, you've spent enough time on the ball, hit it now...And there's some swing keys that, I'll focus a lot on my back swing, but I don't do it every shot to focus on my downswing, so that's why I'm always [sound effects] pulling it left. (Mechanical thoughts; negative thoughts; distracted) (G7,1,1)

Affect

Within the dimension of unsuccessful outcomes, affect was clearly characterized by negative feeling states or being ill at ease.

Negative Feeling States

As suggested by the category name, these states of emotion that the participants described were unfavorable, and included the subcategories of feeling not confident, pressured, tense/nervous, uncomfortable, and not ready.

Not confident. This feeling state was conveyed in the sense of being uncertain or not believing in one's abilities, either from recent play in other rounds or on previous shots

on this day. Several participants doubted that their resources were sufficient to meet the demands of the situation. This type of thinking is represented in the following excerpts:

> I didn't feel real confident over it. I didn't feel confident over any of the putts today, actually... I was very perplexed by that line. (Not confident, unsure) (G2,17,P1)

> ...for some reason it's hard to get the right club on that hole... I'm not confident on that hole... I just figured I could pull-hook it, that's the negative thought I had there, so I blocked it right. (Not confident; negative thoughts) (G3,8,1)

> And then I just quit on the second shot. I was just afraid of the lie to pull it left again, as I've been pulling all day. (Lack of confidence) (G5,4,2)

> ...like on that hole in particular the last times I'd played it, I'd hit it on the left side in the boonies. So I wasn't too confident. (Not confident; negative thoughts, reflections) (G7,3,1)

> I was disappointed because I wasn't confident enough on the putt. I wasn't sure about the read. I was sort of coming over a little ridge, it was on an angle and it was not like a straight putt. And I have to keep telling myself when I make the putt, it's going in, it's going in, you know? I'm gonna make it. And I didn't. I maybe said it to myself once over the whole process of thinking of hitting it. That's not enough. I don't think so. For me anyway. (Not confident; poor assessment) (G7,4,P1)

Tense/nervous. Several participants described an emotional/physiological response that impeded their performance. Some mentioned feeling tense, nervous, or angry with themselves or a circumstance, which translated into physical tension, as indicated in the following quotes:

> ...Anyways, I wasn't comfortable over the shot, and probably got nervous. Not nervous but, just tense before I hit the ball, and I probably lifted my head a bit. So, I picked the ball a little clean and it went passed the pin, and unfortunately ended up in the other trap. (Tension) (G1,16,3)

> ...I don't look relaxed over that shot, if you ask me. I think I just look tense and I tried to force this iron some way. (Tense) (G2,11,1)

> I'm very steamed at this point because I'm not playing well. (Angry; tension) (G7,6,1)

Pressured. Many of the golfers imposed on themselves a certain pressure to perform successfully. This pressure usually came from attending to the significance of a shot's outcome, or the feeling that the participant was running out of time to make up some ground.

> And then this putt I was thinking to myself, okay (self), you've got to make this putt because we're nearing the end, you've got to make something happen soon. (Pressure) (G6,14,P1)

> I really wanted to make this putt though. Which didn't help me, I don't think. I tried too hard on the putt. I should have just kind of walked up and stroked it. (Pressure) (G2,2,P1)

> ...and then the second putt, as I lined it up, one of my bad swing processes... is I'll put pressure sometimes on myself like saying, that's what I did on that green, if you make that putt, you just saved a stroke, you'll be back in the game, you'll play a good game today. And somewhere in the back of my mind, like don't miss it because you'll be awful. And that's a thought that I just hate, but it does come back once in a while. So I had that thought on the second putt. (Pressure; negative thoughts) (G5,5,P2)

Uncomfortable. Another sensation described by participants was feeling generally uncomfortable, or specifically, for example with respect to a participant's grip or some other part of his set up that did not feel right prior to playing a shot.

> ... And I wasn't feeling comfortable over the ball with the driver. I'm just not comfortable with my grip at all. And I probably should have just toweled off, got a new glove, just take it easy... And I'd just come off a couple of bad holes, so I wasn't too happy... I know when I'm not feeling 100% over the ball. Sometimes it's unfortunate that it happens to be in my backswing, and I can go on my backswing - no this isn't right... So, you can't do anything about it. (Uncomfortable) (G1,14,1)

> ... I didn't feel great on that. I just didn't feel comfortable over the ball on that hole. (Uncomfortable) (G2,8,1)

Not ready. Not ready refers to not feeling ready to hit a shot. This meant that the participant did not complete his preshot routine or his thought process, yet went ahead and initiated the shot regardless.

> ...So that's why I'm thinking, popping it right, pulling it left, and I pulled the trigger, maybe a little too soon, should have backed off the ball just a bit. (Not ready; negative thoughts) (G7,10,1)

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In closing, the data developed into a comprehensive organizational scheme that facilitated making sense out of a large mass of information. Although the bundling of data into manageable packages helped to understand the overall picture, it must be reiterated that these packages were not tightly sealed. As such, the bonds between packages must be acknowledged, and an open-mindedness observed for possibly shifting package contents, or remodeling the packages' configuration. Thus, this is not a static system, but a dynamic one.

Although the manner in which the data were obtained was somewhat unique to the study of golf, some of the findings are common to those of other research previously completed. In the ensuing chapter, the results will be examined further, and where possible, compared to relevant literature.

DISCUSSION

The objective of this study was to explore what golfers think about prior to shot making when under the pressure of tournament golf. This context appeared to be one that would demand good concentration efforts, and thus would provide insights from the competitors as to the cognitive strategies they used for attaining effective attentional states. Not only did the participants describe a state of mind in their preshot preparations, but there was a concurrent emotional component alluded to by most golfers as well. At the best of times, these two aspects worked in harmony to produce successful shots, as discussed in detail below. The progression of this work would be to share this information with others who wished to enhance their own cognitive and affective development, with the design of experiencing improved golf performance.

The data collection methods generated a great amount of information, much more than could be addressed within the confines of this paper. However, what did emerge on the specific topic of inquiry, golfers' preperformance states of mind and emotion during tournament play, showcased the wisdom that some very good golfers have amassed over years of serious involvement in the sport.

The manner in which the data were organized is consistent with a method of inquiry researchers have adopted, that of studying participants' best and worst performances (Eklund, 1996; Partington, 1995; Orlick & Partington, 1988). Similarly, prompting athletes to recount their thoughts and preparation when things are going well, and then not so well, has been an effective line of questioning and understanding within individual consulting sessions (C. N. McCaffrey & T. Orlick; ongoing personal

communications). Therefore, in the current study, segregating the information by the dimensions of successful and unsuccessful shot outcomes was an obvious and practical manner in which to frame the data. As well, the most distinctive elements emerged when looked at from these two extremes. While information was obtained on mediocre shots, it did not offer the distinguishing characteristics that were evident when things went very well or poorly.

Successful Shot Outcomes

This study's participants were successful with their shots more often than not. Of all shot outcomes, 52.3% were successful, 34.5% were unsuccessful, and 13.2% were mediocre--which was comprised of the successful, but (SB) and unsuccessful, but (UB) outcomes (see Table 2). It would be interesting to see how this measures against other sample groups, particularly against those who play golf for a living. R. J. Rotella (personal communication, August 31, 1995) predicted that the present participants would not differ from professional golfers in their techniques for setting a favorable mental state for competition. While it would appear the two groups share similar knowledge, it is likely that the professionals avail themselves of it more consistently and more proficiently.

A closer look at the components of the dimension of successful outcomes follows. The relatedness between themes, categories and subcategories will be increasingly evident as the discussion progresses.

Effective Mental Preparation Thoughts

Interestingly, the category with the most meaning units was that of effective mental preparation thoughts. The subcategories here are closely related to those elements of

Table 2

Shot Ratings of Participants

	Participant Number								
Shot Outcome	1	2	3	4	5	6	7	Sample	
Successful (S)									
Drives	6	10	6	14	7	13	6	62	
2nd Shot	7	10	7	11	5	7	8	55	
3rd Shot	2	4	3	5	2	2	1	19	
4th Shot	1			1	1		1	4	
5th Shot			1					1	
Putt 1	6	6	7	3	3	5	6	36	
Putt 2	10	10	11	13	15	12	10	81	
Putt 3	1	1		2		1	1	6	
Total	33	41	35	49	33	40	33	**264**	52.3%
Successful, but (SB)*									
Drives	1	2	4		4	2		13	
2nd Shot	1	1	5	1	5	1		14	
3rd Shot	3	1	3		3	2	1	13	
Total	5	4	12	1	12	5	1	**40**	7.9%
Unsuccessful, but (UB)*									
Drives	6	3	2	1	1	1	2	16	
2nd Shot	2	2	1		1	1	1	8	
3rd Shot	1	1				1		3	
Total	9	6	3	1	2	3	3	**27**	5.3%
Unsuccessful (U)									
Drives	4	3	6	3	6	2	9	33	
2nd Shot	5	2	5	3	6	6	5	32	
3rd Shot	2	1	1		4		5	13	
4tlh Shot	1	1	1		1		1	5	
Putt 1	11	11	11	15	15	13	9	85	
Putt 2	1	1		2		1	1	6	
Total	24	19	24	23	32	22	30	**174**	34.5%
Total shots recorded	71**	70	74	74	79	70	67 ***	**505**	
Total (S)	**33 / 46.5%**	**41 / 58.6%**	**35 / 47.3%**	**49 / 66.2%**	**33 / 41.8%**	**40 / 57.15%**	**33 / 49.3%**	**264**	
Total (SB)	**5 / 7.0%**	**4 / 5.7%**	**12 / 16.2%**	**1 / 1.35%**	**12 / 15.2%**	**5 / 7.15%**	**1 / 1.4%**	**40**	
Total (UB)	**9 / 12.7%**	**6 / 8.6%**	**3 / 4.1%**	**1 / 1.35%**	**2 / 2.5%**	**3 / 4.3%**	**3 / 4.5%**	**27**	
Total (U)	**24 / 33.8%**	**19 / 27.1%**	**24 / 32.4%**	**23 / 31.1%**	**32 / 40.5%**	**22 / 31.4%**	**30 / 44.8%**	**174**	

*Comprise mediocre shots

**Shot 76, one hole where 5 strokes were played was not recalled

***Played with partner, therefore, not all shots had to be played

excellent performance that have been presented in other studies (McCaffrey & Orlick, 1989; Orlick, 1992, 1996; Orlick & Partington, 1988), as well as to the aspects that characterize peak performance in golf (Cohn, 1991). While those works involved athletes whose experience was on a more elite level, it is noteworthy that the present study's participants were well on their way to performing at their best. The fact that they compete as a hobby and not as a full time vocation makes their accomplishments that much more remarkable.

Orlick (1990) has highlighted the importance of adopting a positive perspective in order to excel in sport. It was evident in the present study that the participants were well versed in this practice. Specifically, they knew the essential cues to rehearse as they prepared for a shot, cues which reminded them of a sense of timing or rhythm that was needed to produce a fluid swing. In addition, a positive perspective was practiced through the positive self-statements the participants used to encourage or reassure themselves, and in their attention to the good aspects of a situation rather than the less desirable ones. They also learned from previous play, using this experience to guide their current play wisely. Finally, several participants adopted the routine of reflecting on previous performances where they had tackled a similar shot successfully. These methods enhanced confidence, and drew the participants' focus to a positive one, thereby diminishing the possibility of negative distractions becoming an issue. McCaffrey and Orlick (1989) found comparable practices in their work with professional golfers, referring to the above methods as varying types of imagery.

Rotella (1995) discussed the importance of simplifying one's thoughts in preparing for shot execution. He stated the necessity of keeping only one thought in the forefront, otherwise one would increase the likelihood of becoming distracted or overwhelmed, and thus unable to freely perform the well-rehearsed skill of swinging a club. One of the categories found in peak golf performance (Cohn, 1991) was a narrow focus of attention. This is analogous to keeping things simple. External focus is tuned to one object, and internal focus to one thought. In the present study, the participants were conscious of this desirable mode of keeping things simple, and limited their mental cues to one or two essential keys. Not only did the participants try to limit their thoughts, they also tried to simplify the thoughts' content. In so doing, the players returned to the basic tenets of the game, which include advancing the ball by putting a good swing on it. Essentially then, keeping it simple meant keeping the objectives simple and the thoughts few or even solitary.

Rotella (1995) also expounded on the importance of the mind's eye keeping one's target in view. By this he meant that even after the golfer has glanced at his target and has returned his regard to the ball at address, a third eye, the mind's eye, still has the target in clear sight. This study's participants repeatedly referred to target selection, and of it being the sole object of their focus. This was particularly important when the perspective from which they were hitting was barren of a precise target, thus requiring the golfer to invent one. It was equally important to focus on a target when trying to avoid trouble or a hazard. As Rotella explained, the body has a way of reacting to the last thing seen with the mind's eye. Thus, if the last thing pictured was trouble, one's motor effort would be

oriented toward it, inducing the exact result one was trying to avert. This concept of target focus, then, is intimately related to distraction control.

Distraction control, or distress management (Partington, 1995), is a skill several researchers have found in their work with elite performers (Eklund, 1996; Kreiner-Phillips & Orlick, 1993; McCaffrey & Orlick, 1989; McDonald & Orlick, 1994; Orlick & Partington, 1988; Partington, 1995). Golfers who have enjoyed peak performances also expressed a state likened to distraction control; in this case, control of self was evident in controlling their emotions, arousal level, and thought process (Cohn, 1991).

In their practice of controlling distractions, the present study's informants revealed several ways to filter out competing but nonessential thoughts. One of the more interesting techniques offered was that of imagining being alone in a practice situation, and trying to feel the swing as it normally happened in this non-pressured context. Thus, recollections of a more simple, relaxed situation, and the feelization of being in practice, helped this competitor eliminate distractions and get focused. As well, it was important for him to exercise positive self-talk which centered on trusting his swing and letting things happen naturally. On other occasions this same participant found focusing on his target and remaining in the present to be helpful in controlling disturbances. Hence, it was evident that such things as imagery, trust, positive self-statements, target focus, and a present orientation contributed to dispelling distractions. Other concepts referred to by the participants that accomplished the same objective were keeping things simple, reflecting on good performances, and applying lessons learned from earlier play. This clearly

demonstrates how thoughts comprising the effective mental preparation category were interconnected elements, rather than isolated ones.

Imagery was referred to in various forms by the participants of the present study, and as previously mentioned, much like professional golfers did (McCaffrey & Orlick, 1989). Anderson and Barclay (1990) also found in their study of collegiate golfers that imagery techniques were among the most frequently used thought processes. The concept of target focus was intrinsically linked to imagery, as it constituted the core of the visualizing skill for many of the participants. A few also imagined the flight of the ball, mentioning that they conjured up a precise picture of how they wanted to see the ball fly. Other mentions of imagery alluded to the feel of the swing that the participant was trying to encourage. These forms of constructive imagery helped set the stage for successful performance (Orlick, 1996). Kirschenbaum and Bale (1980) had also emphasized the use of imagery techniques as one of the essential skills in their cognitive-behavioral program.

The participants in Cohn's (1991) study of peak performance in golf ascribed to a present orientation. This was characterized by "not thinking of past or future events" and "being focused on the shot at hand" (p. 5). Although likely diminished in intensity, similar states were mentioned in the present study. Here, the participants cited the ideas of staying patient and attending to process rather than outcome, by simplifying their thoughts to the single task of performing the current stroke. The notion of remaining in the present has often been credited for its role in superior performance (Kreiner-Phillips & Orlick, 1994; Orlick, 1996; Orlick & Partington, 1988; Rotella, 1995; 1996).

Effective Technical/Tactical Thoughts

The participants' competitiveness became apparent when they talked about their aggressive approaches to play. Often the players knew from earlier rounds where the course facilitated a bold playing style. Par fives were a common place to exercise this mode, since most of the players were long ball hitters and could reach the green in two shots. At other times an aggressive style was dictated by the players' ball striking success to that point in the round, which gave them confidence to indulge an assertive approach. Being aggressive demonstrated a decisiveness the players had in their competency to meet the added challenge. They were certain of how they wanted to play a particular shot, and were convinced of the increased benefit they could reap. This concept of decisiveness was emphasized by Rotella (1995) as being essential prior to initiating a shot.

Kreiner-Phillips and Orlick (1994) found that elite athletes' focus during a winning event was often characterized by an attacking mode. Being unfearful of consequences was described by golfers in their peak experiences (Cohn, 1991). These were likened to having an aggressive mindset, as relayed in the present work.

Even though the participants of this study were often aggressive in their play, this did not translate into a prevailing free-spirited recklessness. In many instances when the players evaluated a situation, they decided to play more cautiously, realizing that a risky approach was not warranted or could not sufficiently guarantee a more beneficial outcome. Much of the conservative attitude came from experience, either in general or from earlier rounds at the present course. Furthermore, decisions were based on an accurate assessment of the circumstances, or the participants' desire to play without

putting unnecessary pressure on themselves. These latter two concepts, good assessment and not pressured, are stand-alone subcategories which remain to be discussed. In addition, the concepts of aggressive and conservative/smart are closely related to strategy or course management decisions, also to be discussed in subsequent text. This further demonstrates the interconnectedness of categories, subcategories, and themes.

Making good assessments is where the participants' knowledge and experience radiated. It is from extensive play and competition that the players have learned what to look for, how to assess it, and what adjustments to make or shot to play thereafter. Knowing how the ball will fly out of a particular lie, what kind of effort to put into a swing, what club would best do the job for a difficult shot, and what adjustments to make on the club or in one's posture to allow for the prevailing elements, are all examples of how the participants demonstrated a thorough, appropriate assessment. When this was undertaken, no factor was overlooked, and the evaluation precipitated a successful outcome.

Golf is a unique situation, in that playing conservatively can be advantageous. Rarely is the nature of a sport such that the player is also permitted time to ruminate over the existing factors, and make a judgment accordingly. Perhaps this is why these concepts of conservative/smart and good assessment seem to have been unaccounted for in the extant literature.

Participants' notions of getting into position for ensuing shots on a hole were allusions to course management or strategy. As previously explained, this subcategory is closely linked to those of aggressive and conservative/smart, since these last two are

merely differing means of getting into an advantageous tactical position. When the participants played practice rounds, they looked for the positions that would best set up subsequent play. Thus, when they stepped up to the tee on a hole, often the strategy was preset in their minds. This corresponds to what McCaffrey and Orlick (1989) expressed in the pro golf study as having a pre-tournament plan. They described it as having a strategy that was predetermined, "a mental plan for course management and shot making strategies" (p. 263). In the current study, course management was sometimes an issue when a participant was trying to extract himself from a very poor position, thinking of how he could best play the remainder of the hole while limiting the damage.

When referring to trust, the study participants voiced a conviction regarding assessment, club selection or their swing ability. In a similar vein, commitment was a notion of trusting their instincts about their initial choice of shot, club or putting line; in this case, there was no apprehension, and no second-guessing.

These mirror the concepts found by Cohn (1991). One of the categories of peak performance in golf that relates very closely to trust is that of automatic and effortless performance. This group contained the subcategories of limited conscious control, sense of effortless performance, and reliance on instincts/natural ability. These exude the essence of the trust/commitment subcategory in the present study.

Rotella (1995) discussed the need for a golfer to develop trust. He stated that the time to worry about swing mechanics was on the practice range, but when it came to playing, one had to trust what he had trained repeatedly in practice. Alternatively, Rotella explained that if one's best swing did not tag along on a particular day, the player had to

trust the job could be accomplished equally well with whatever was brought to the course. Likewise, one should never commence a swing until completely committed to it, and when in doubt, one should back off and start the readying process anew. In their recall of the trusting thoughts that preceded successful strokes, the study participants were emphatic about being fully ready to hit the shot of their choice. Similarly, they were prepared to allow the swing they had practiced extensively come through on its own. Self-statements about trust are akin to adopting a positive perspective, and in turn, served as a means of distraction control.

Positive Feeling States

The descriptions of emotional states in the dimension of successful shot outcomes were overwhelmingly positive in nature. This makes sense intuitively since golf is a sport where high activation levels, aggravated states of mind, or physical tension are detrimental.

The most frequently cited positive feeling state was that of feeling confident. This was also the subcategory of the entire study to which the greatest number of expressed thoughts pertained. High self-confidence was also described as an integral facet of peak golf performance by Cohn (1991). Likewise, Rotella (1995) stated that confidence is at the heart of everything he teaches to those seeking better mental preparation. In fact, he has devoted an entire monograph to the concept of confidence in golf (1996).

Confidence can be effected in many ways, and it is here that the greatest cycle of interconnectedness between dimension, theme, categories and subcategories was apparent. Success breeds success, so any satisfactory shot outcomes gained on previous holes or on

previous days served as great confidence boosters for the participants. Positive self-statements or good reflections also generated confidence, which ultimately influenced successful shots. When a participant was confident, it was more likely that distractions were under control, and that his orientation was in the present. Confidence also fostered a participant's trust of strategy and assessment. Thus, at this level of proficiency, the extent to which players felt self-assured, was an emotional state with a far-reaching impact.

To encourage a non-pressured state, the participants often reminded themselves to be realistic about their performance expectations, when the shot they faced was a particularly difficult one. Similarly, if a round was in its early stages, an appropriate reminder was to be prudent and wait for the momentum to engage of its own volition. Moreover, diminishing pressure usually coincided with the decision to play conservatively, and with adopting a simple focus.

Circumstances can also reduce felt pressure. In an event played with a partner, a participant felt relieved of pressure when his partner's shot landed within tap-in birdie range. Since bettering this result was unlikely, the participant was then able to swing with a sense of freedom.

The participants' intimations of being comfortable pertained to a physical feeling of ease, rather than a specific semblance of confidence. This usually accompanied a perception of correctness of feel, such as in one's grip, or in one's general set-up at address. For one participant it was described as a sense of being at peace with himself and his abilities, in comparison to the field of competitors.

The notions of lucky, excited, and good pressure were scant references to other positive feeling states, the meaning of which was addressed in the results section.

Unsuccessful Shot Outcomes

Previous golf research seems not to have touched on those things that golfers do to get in their own way. Most studies have relayed the positive things that good golfers do, or should do. The current study differs by also presenting the "dark side".

Ineffective Mental Preparation Thoughts

The most pervasive ineffective mental preparation thoughts related to negative perspective. Most amateur golfers are at one time or another, or even most of the time, plagued by thoughts of their shortcomings, or the potential danger that lurks when faced with various shots. Once these thoughts overtake a player's mindset, it is very difficult to dispel them, and the resultant performance is rarely successful. Despite the experience and skillfulness of this study's participants, they too succumbed to the mental invasion of negative thoughts, and had to endure the ensuing undesirable performance outcomes.

A common strain of thought was being bothered by poor or inconsistent course conditions. In these instances, the players tended to write off their chances of making a great shot or putt since they so strongly doubted that the physical state of the course would make this feasible. As these were conditions faced by all competitors, it would have been more profitable to accept them and convince oneself that it was still possible to perform successfully, thereby giving the power of positive thinking a chance to do its magic.

When one is faced with the memory of successive poor shots, either with a certain club or from a particular position, it is very difficult to overturn this negative momentum. The participants noted on several occasions how having a couple of bad drives in a row, or a persistent ineffective swing tendency, made it that much more likely that the problem would continue. A sense of fear or doubt would set in and would make it difficult to trust one's trained ability. In such instances, it is wise to go with a club or shot with which one feels most comfortable. Since we are usually over-concerned with distance, we often make poor decisions and insist on continuing with a club which clearly has our confidence on the ropes. This is where course management becomes a more essential issue, and achieving desirable performance outcomes must be seen as a probability if one chooses a different means of accomplishing the task. Similarly, a persistent dislike for a hole or type of shot would make it very unlikely that a successful performance could be orchestrated. This also requires a shift in conviction, an examination of perhaps an alternate way of playing the hole so that the demons could be put to rest.

Finally, negative perspective was apparent when the participants' last thoughts or self-statements were to "not do" something. As one competitor stated, ". . . anytime you say 'Don't hit it there', you end up hitting it there" (G6). This was a pattern that repeated itself for several participants, again allowing doubt, fear, or the last menacing object observed by the mind's eye to interfere with the automaticity of the participants' trained swings.

Being distracted was another way in which ineffective mental preparation was manifested for several participants. Often one's thoughts strayed as a result of seeing or

hearing something that was unconnected to the immediate task of executing the stroke. As well, distraction was evident when one's thoughts were consumed by the meaning a shot's outcome had, rather than focusing on the process of performing.

Closely related to the concept of distraction was that of engaging in a future orientation. In these cases, the participants allowed themselves to focus on performance outcomes instead of staying in the present. When this occurred, a certain tension or pressure was introduced that prevented the participants from swinging freely, and resulted in a poor outcome.

An unusual occurrence described as a mind explosion by a few participants, was defined as a total mental lapse or loss of concentration. Although it was clear in these cases that the consequence of such a lapse was unfavorable, the participants who experienced it were at a loss as to why it happened, and could not foresee it happening. This suggests that one must monitor the focus one has in the last moments of preparation for a shot. However, due to the duration of a golf match, and the simultaneous demands on one's attention, one wonders whether attentive vigilance can be maintained throughout the game. Perhaps momentary lapses cannot be prevented, or if they can, perhaps training of one's attention is required in order to avoid such cerebral lulls.

The final concept alluded to in the category of ineffective mental preparation thoughts involved a few instances where a participant was trying to image the shot he wanted to hit, but finally had to proceed before having a clear picture of it in mind. This would seemingly challenge the participant's trust in his ability to produce the desired shot, thereby increasing the likelihood of a mishit. Again, one would have to be ready to deal

with these visualizing difficulties until such time as the imagery skill was more fully developed.

Ineffective Technical/Tactical Thoughts

Proper assessment of all the intervening factors a golfer faces prior to committing a shot is one of the great challenges of the game. With experience, and familiarity with a course, one becomes more adept at judging how various aspects of the terrain and environment will affect the path of a ball. Since golf is a game of precision, a small miscalculation will send the ball off its intended course; larger errors of judgment can have disastrous results. The participants frequently referred to the subcategory of poor assessment when relating their thoughts.

One of the more difficult things to assess was how the ball would fly out of the rough. The participants frequently made adjustments for a flier, i.e. the ball taking off higher and further than anticipated, yet at impact the ball reacted as with a "normal" lie. In other instances the participants did not play for a flier lie, and were forced to deal with a shot traveling far beyond what they had expected. It is questionable, therefore, how one becomes better at making such judgments, and whether the golfer has a realistic chance of correctly assessing a flier lie while playing within the rules of the game. Perhaps this is one aspect that is more a reflection of luck than a player's skill.

Inaccurate assessment of course conditions also posed a problem in the study. It was clear on a few occasions that a participant forgot that wet terrain from recent rainfall called for an adjustment in how some shots from around the green should be played.

Failure to monitor one's own condition was another example of poor assessment by a participant. In this case, the individual had just completed a very poorly played hole and was clearly angry with himself. He not only neglected to try to dispel the anger, but he also ignored what impact being pumped up in this fashion would have. As a result, the extra adrenaline caused the participant to overshoot his target, thereby compounding his unsuccessful play.

The closer a golfer gets to holing out, the greater the impact of a small miscalculation. In other words, once a player is on the green, the margin of error is reduced, and one has to become an accurate reader of putts. On numerous occasions the participants watched the ball seemingly on its way to the bottom of the cup, only to come to rest outside the hole after riding the lip. In other instances the results of a poor read were much more pronounced. Often a misread was the result of overreading the green. In these cases, the participant overestimated the influence certain factors would have, or became so overwhelmed by the number of factors he considered, that he actually neglected to put a decent stroke on the ball. It would appear that keeping things more simple would have better served the participants for some of their putting trials.

Another inefficient technical/tactical subcategory was that of tentative thoughts. There were times when the participants wanted to be careful while executing a shot. The resultant tentative effort was referred to as "babying a shot", "chickening out", or "being wishy-washy through the ball". These feeble swings or strokes usually produced an outcome that was much worse than if the participants had been aggressive, or assertive in their exertions.

Similarly, uncertainty played havoc with some of the shots the participants tried to execute. When one chooses a club and is not sure if it's the right one, or reads a putt and is not sure where the ball will in fact go, it would seem that one limits the chance for a desirable outcome. It is also detrimental, as experienced by a few of the participants, to lack conviction or to change one's mind about an initial decision. Thus, believing in one's decisions and trusting one's instincts appear to be important components in setting the stage for successful play.

This is not to say that abiding by a decision ensured that it was a correct one. There were several references to bad tactical decisions, when circumstances presented a couple of options on shot or club selection. In retrospect, the participants condemned some of their decisions as inappropriate, or reproached themselves for being stubborn, or unthinking. This is likely to happen when hasty decisions are made. On important shots, one should feel justified in using the time allotted by the rules. There also has to be allowance made on the part of any golfer that bad decisions are within human nature, and it is one's subsequent behavior that will dictate whether or not the tide of misfortune continues.

The final subcategory contained within inefficient technical/tactical thoughts is that of mechanical thoughts. It was clear that on the occasions when a participant broke his swing down and attended to its respective parts, the swing that followed was stilted and unsuccessful. At this level of proficiency, the participants had spent years developing their swings. Even if a swing change had been introduced, these golfers were doing themselves a disservice by thinking about the swing's component parts while out on the golf course.

The skill of swinging a golf club demands an automaticity that when tampered with, results in a stiff, manufactured effort. The participants who allowed themselves mechanical thoughts throughout their swings were confronted with the resultant disconcerting outcomes.

Negative Feeling States

Negative states of emotion were most usually described by the participants as not feeling confident. They stood up to the ball and their thoughts dwelled on the distressing history they were making that day, or the historically negative results they had encountered on a particular hole. Rather than feeling confident that their trained ability would begin to shine through, the participants noted several occasions when they just couldn't bring themselves to believe.

Closely related to this concept was the feeling of tension or nervousness. The manifestation of the players' apprehension, or in some cases anger, was a physiological response, a physical tension that interfered with the execution of a normal, uninhibited swing. The same physiological reaction was likely to occur when the participants pressured themselves to make something happen in their rounds. Thus thinking of outcome and trying too hard to perform were pressures that frequently led to undesirable efforts. One must get into the habit of relaxing prior to every shot, and attending to process rather than being consumed by results.

Finally, feeling that something was amiss in one's set-up or preparation, as well as initiating a swing prior to feeling sufficiently ready, were other thoughts expressed by a few of the participants which ultimately led to unsatisfactory shot outcomes. Neglecting to

get comfortable or ready is a common error, and one that can easily be addressed by backing off and restarting one's shot preparations.

While many thoughts were expressed by the participants as being inappropriate or inhibitive to successful play, it must be noted that these thoughts surfaced less frequently than ones which were much more constructive. It would appear that, in general, the participants knew how to invoke the correct mindset most of the time; however, attentional lapses could be parlayed into any number of discordant practices that contributed to disappointing shot results. Thus, awareness seems to be an important first step in coaxing an advantageous mental condition. This awareness was clearly enhanced for those who participated in this investigation.

The inter-relatedness of the subcategories housed within the dimension of unsuccessful shot outcomes is clearly demonstrable. Rarely do these concepts operate in isolation.

Insufficient mental preparation produces negative feeling states, and contributes to technical/tactical deficiencies. Technical/tactical weaknesses intertwine to create undesirable results. Poor assessment of one's circumstances is often precipitated by a sense of distraction. Simplification is at a low ebb in these instances. Tentativeness, uncertainty and mechanical thoughts smack of lacking confidence, which in turn evokes a lack of trust. As a result of any or all of these factors, bad decisions are made. The weakness that begins this cycle may rest in any theme or subcategory. Regardless of its origin, it is a vicious cycle that can have a progressively detrimental effect on performance.

Weaknesses were conveyed in the participants' descriptions of thoughts that failed to promote successful shot making. In addition to being interesting to read, the excerpts serve a valuable purpose. The participants' quotes in this dimension emphasize to readers that having thoughts of a similar nature will likely produce the same unsatisfactory outcomes. There is opportunity for readers to recognize in their own states of mind and emotion, certain peculiarities that inhibit their success in golf, ones about whose existence or impact they may not have previously been aware. By illuminating the contrast between successful and unsuccessful shot outcomes, the examples within the latter dimension may help players clarify how positive mental preparation can enhance performance.

Stimulated Recall Methodology

Just as Bloom (1953) discussed in his work regarding students' thoughts during differing lesson styles, the present study revealed that the stimulated recall method was successful in reliably evoking thought processes, while restricting researcher interference. This supported the investigative success of research conducted in the physical education domain in which stimulated recall methodology was used (Allison, 1987; Byra & Sherman, 1993; Ennis, 1994; Fernandez-Balboa, 1991; Lee, Landin & Carter, 1992; Tan, 1996; Walkwitz & Lee, 1992).

In relation to the research undertaken in sport whereby videotaping was employed as part of the stimulated recall technique, the current study attained similar success in the documentation of participants' thought content. As discussed by Blackburn and Hanrahan (1994) in their work with runners, the participants preferred videotaping for postexercise recall as one of the procedures designed to capture their thoughts. In the current study,

the participants were highly enthusiastic in their support of videotaping for postround recall. Furthermore, Haughian (1996) reported in his case study of a youth ice hockey coach that the stimulated recall methodology was very successful in allowing the coach to recall his decision-making thoughts with a great deal of precision. Expert golfers are usually adept at providing a detailed account of their most recent round, and can often recall less current rounds very specifically as well. Nevertheless, the stimulated recall methodology employed in the present study was favorable in prompting the participants for additional information beyond that which was discussed during the free recall of events.

As addressed by Calderhead (1981), the issue of verifiability of thoughts was one that required the current researcher to accept largely on trust that the participants were being truthful. The establishment of a comfortable, trusting rapport between the researcher and the participants, as suggested by Bloom (1953) and Gaier (1954), was key in encouraging the golfers to be honest in their revelations. As well, the fact that data were collected by means other than the interview, i.e. observations and videotape, lent credence to the participants' accounts of situational factors and context. Reliability will continue to be an issue in research regardless of which tools are used to collect data. One can only attempt to enhance the trustworthiness of what participants offer as data throughout the course of an investigation.

Limitations of the Study

Field experiences usually produce stories about the things that failed to proceed according to plan. In retrospect, they can be quite amusing, but at the time, they can cause the researcher great angst. The present study was no exception.

Despite efforts to ensure that all preparations for data collection were complete, the video camera battery was insufficiently charged for one of the tournament days. Consequently, the player's action was only filmed for the first nine and a half holes. Therefore, during the postround interview, recall was stimulated by video review for those holes only, and the balance of the round was discussed by the participant under conditions of free recall.

While most videotaping took place under graciously sunny skies, there were a few less pleasant occasions when rain became an additional factor with which to deal. Unfortunately, there was one day of deluge when it would have been impossible to keep the camera dry, and seeing as this expensive piece of equipment belonged to the university, the decision was made to follow the golfer with only the benefit of recording observations on audiotape. The entire postround interview was conducted by free recall.

In both of these instances, the informants were able to recall the details of their rounds quite thoroughly, but the added benefit of reviewing the round on videotape was clearly missed.

There were other existing factors that were beyond control, and which likely had an impact on what transpired during each tournament round. For example, the dynamics of each group in which a participant played could not be controlled. Therefore, some

individuals may have played with competitors with whom they were acquainted, or with whom they might even have had particular rivalries or difficulties in the past. As well, some tournaments were comprised of only one round, while others were two or three day events. Whether the data were collected on day one, two or three likely presented differing contingencies. Thus, all of these intervening factors limit the generalizability of the study's findings (Wolcott, 1990), and consideration of them must be made cautiously. The report of results represented a snapshot of what transpired for a particular group of individuals, at particular events, on particular days. It is up to the reader to determine what in the findings is of interest and applicable to other situations.

Summary and Conclusions

The primary aim of this study was to explore what expert golfers do to keep themselves mentally strong and focused throughout the rigors of competition. This objective has been met. Data analysis revealed that outcomes were preceded by a variety of different cognitions and feelings, as defined within the dimensions of successful and unsuccessful shot outcomes.

Those who participated in this project enjoyed successful outcomes more often than unsuccessful ones. The most frequently referred to positive cognitions, and ones voiced by all members of the study sample, were positive perspective and simplified mental preparation thoughts, aggressive and conservative/smart technical/tactical thoughts, and confident feeling states.

The most repeatedly expressed thoughts in the undesirable outcome domain were a lack of mental preparation represented most usually by negative perspective, and

technical/tactical weaknesses corresponding primarily to the poor assessment, tentative and uncertainty subcategories. Not being confident was the most widely described negative feeling state.

Compelling similarities to earlier research studies related to the findings of Cohn's (1991) project on peak performance in golf, and to the work exhibiting the elements of excellence of elite performers (McCaffrey & Orlick, 1989; Orlick & Partington, 1988).

The major distinction over previous golf research was in the present study's data collection methodology. While much of the earlier work has been accomplished away from the natural golfing context, and particularly a competitive one, this project breaks new ground by pursuing informants during ongoing tournament circumstances, and by attempting to document thought content as closely as possible to the time when the thoughts originally occurred. Videotaping participants as they competed, and interviewing them with videotape playback to stimulate thought recall, had not yet been endeavored in golf.

If a general observation can be given about the findings of this study, it is that the recurrent essence of virtually all revelations was focus. This was suspected at the outset. The thoughts, feelings and routines these golfers successfully employed all had appropriate, sustained focus as their goal. When these elements were abandoned or not practiced well, it was the golfers' focus that suffered, and was thus manifested in a poor shot outcome.

This study presented an opportunity to utilize a methodology not yet applied to golf research. The videotaping portion of the interactions was extremely well received by

the participants. It was non-intrusive, by their own admissions, and captured their behaviors preceding and following each shot. The players loved watching themselves on tape since they rarely, if ever, had had the opportunity to view their tournament swings.

As a researcher enamored with golf, the data collection period was a rich and thoroughly enjoyable learning experience. Moreover, the methodology was well suited to the project. Enthusiastic golfers can recall their rounds in minute detail, as one participant explained, "at least to the first five or six people who ask". Initially unsure whether they could also recount their thoughts and emotions, it quickly became apparent that the stimulated recall interviews prompted the informants for a full disclosure of these aspects as well.

The insights gleaned from the study have already proven valuable in my consulting sessions with other golfers. Furthermore, the participants expressed the pitfalls of their less successful play, ones with which most golfers can identify. These remind us how to avoid getting trapped in a prohibitive mindset.

Most participants experienced a positive consequence from their involvement in the study, in that their play improved in the rounds following our interaction. This is understandable. Having reviewed a round of golf in such detail as they demonstrated in the study, the participants became tuned to the aspects of their preparations that worked well, or less well, for them. Through their reflections about their own games, the informants realized what they needed to do to help themselves consistently play better golf. As McCaffrey (1989) stated in a study of professional golfers, it was as if a light bulb went off in their heads to signal that they had neglected to retain the patterns of thought and

behavior that had worked successfully for them in the past. These players also went on to enjoy renewed success. Although neither McCaffrey nor I have claimed cause and effect, the studies' by-product of enhanced performance is a notable phenomenon.

The stimulated recall procedure as outlined in the study adapted well to an applied setting, and will be used in future consulting engagements. An extension of this work can be achieved by graphing the evolution of the round, and tabling the statistics on each of the golfer's shots. These were the tools used as part of the individual preliminary reports created for each participant (see Appendix E). One participant plans to use the framework to monitor his play during the next competitive season. I am delighted by this endorsement of my methods.

The enthusiasm extended by all participants, co-competitors, and tournament officials confirmed I was on to something worthwhile.

Future Directions

Seemingly, there was a link between the nature of the golfers' preperformance thoughts and the resultant performance outcomes. Successful results were precipitated by positive thoughts. In future work, it would be exciting to determine the correlation between the factors represented by subcategories, and shot results. The strength of these correlations would suggest the components of intervention programs that might prove most beneficial to enhance golf performance.

Research could continue with similar studies of other groups, to explore the commonalities or contrasts to the results of the present work. Samples of professional

golfers could be investigated, while incorporating the factors of gender, or years of experience.

Whether a relationship exists between the chronology of a round and the type of thoughts that golfers have remains to be determined. In other words, are early portions of a round characterized differently from later portions? Is there a pattern that develops among golfers of this caliber, or is it strictly individual? It would also be interesting to compare the thoughts of golfers who are in contention, with those who are not, although enlisting contenders might prove to be a challenge.

Since the current study was a success from a methodological standpoint, researchers should be encouraged to conduct future work in other sports or domains, to extend the knowledge base regarding the cognitions of experts as they perform. The potential for widespread application of results warrants inquiry.

Perhaps a closer investigation of the relationship between confidence and attentional control can be undertaken, since confidence was the most frequently cited positive feeling state associated with successful shot outcomes. Intervention programs designed to improve confidence could be created, and their effect on concentration, and likewise on enhanced performance, could be assessed.

The current study provided a very good starting point from which additional work can be initiated. With the proliferation of golf as a game for life, there would surely be an abundance of players looking for an edge, a key, a cure, and willing to submit to any number of studies that might provide the insight they crave.

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Appendix A

Observation Protocol

Observation Protocol

The following should be observed by the investigator and any changes in them noted:

1. The player's play
2. Reactions
3. Behaviors
4. Body language, facial expressions
5. Verbalizations
6. Preshot routine
7. Tempo
8. Comportment
9. Uptight, relaxed
10. Pumped - clubbing down

Appendix B

Background Information Sheet

UNIVERSITÉ D'OTTAWA
UNIVERSITY OF OTTAWA

FACULTÉ DES SCIENCES DE LA SANTÉ
FACULTY OF HEALTH SCIENCES

University of Ottawa Golf Study: Background Information

The following will provide useful background information for the current study. Please complete the sections as fully as possible.

Name _____

Age _____

Club affiliation _____

Handicap index _____

Age at which you first hit a golf ball _____

Age at which you started competing in golf _____

Number of years of competitive golf at the A level _____

Number of times (approximately) that you've played this course _____

Did you have occasion to play or practice before the local golf season began? _____

If yes, how often did you practice? _____ How often did you play? _____

Tournaments played so far this year : I) total number of events _____

II) total number of tournament rounds _____

Practice: I) number of practice rounds played so far this year _____

II) average hours of practice per week so far this year (outside of practice rounds) _____

Rounds of golf: approximate number of rounds of golf played so far this year, outside of tournament and practice rounds _____

Thank you for your assistance!
Sue Malo, Researcher & Dr. Terry Orlick, Supervisor

ÉCOLE DES SCIENCES DE L'ACTIVITÉ PHYSIQUE
125 UNIVERSITÉ CP 450 SUCC A
OTTAWA ON K1N 6N5 CANADA

SCHOOL OF HUMAN KINETICS
125 UNIVERSITY PO BOX 450 STN A
OTTAWA ON K1N 6N5 CANADA

(613) 564-5920 • TÉLÉC./FAX: (613) 564-7689

Appendix C

Background Information Summary

Background Information Summary

GOLFER	AGE	HANDICAP	FIRST BALL	FIRST COMP	YEARS "A"	X COURSE	PRE-SEASON X PRACTICE
#1	28	0	8	13	13	3	0
#2	32	0	10	14	15	20	1
#3	41	0	13	29	12	30	0
#4	46	-1	22	26	20	60	10
#5	51	-1	7	15	37	6	8
#6	19	-2	10	15	5	2	96
#7	29	1	8	10	14	10	0
AVERAGE	35,143	-0,429	11,143	17,429	16,571	18,714	16,429
RANGE	19 to 51	minus 2 to 1	7 to 22	10 to 29	5 to 37	2 to 60	0 to 96

GOLFER	AGE	PRE-SEASON X PLAY	TOURNAMENT # EVENTS	TOURNAMENT # ROUNDS	PRACTICE # ROUNDS	PRACTICE HRS/WEEK	ROUNDS OF GOLF PLAYED SO FAR
#1	28	5	7	14	1	1	6
#2	32	1	1	1	1	1	12
#3	41	20	9	15	5	1.5	60
#4	46	0	3	5	2	6	42.5
#5	51	0	9	20	9	1	35
#6	19	96	11	33	9	25	200
#7	29	0	5	9	3	3	30
AVERAGE		17,429	6,429	13,857	4,286	6,167	57,167
RANGE		0 to 96	1 to 11	1 to 33	1 to 9	1 to 25	6 to 200

X denotes "the number of times"

Appendix D

Instructions to Participants for Stimulated Recall Interview, and Interview Protocol

INSTRUCTIONS TO PARTICIPANTS FOR STIMULATED RECALL INTERVIEW.

AND INTERVIEW PROTOCOL

To review today's round, I want you to begin by remembering each hole that you played, one at a time, shot by shot. Describe what you were trying to do, what you were thinking or saying to yourself, and how things went. After you've described a hole, we'll play back that segment of the videotape to see if any further information or thoughts come to mind. We'll continue like that until all 18 holes have been recalled. Do you have any questions? Let's start.

1. Describe each hole that you played, one hole at a time.

2. What were you thinking, focused on, saying to yourself?

3. What were you feeling?

4. Was this a typical round?

5. What have you done in the past that has helped your performance? What is the strongest part of your game?

6. Was that any different today?

7. Describe your typical pre-shot routine.

8. Describe your routine and thoughts from last night. Was that typical, or did you do anything differently?

9. Describe your routine and thoughts from this morning. Was that typical, or did you do anything differently?

10. Describe your routine and thoughts a couple of hours prior to today's round. Was that typical or did you do anything differently?

11. What have you learned from today's round?

12. What is your game plan for your next tournament?

Finally: What did you think of the process we went through today? Would you have preferred something to have been done differently? Do you have any further advice or comments to offer?

I would like to thank you for your assistance and generous cooperation today, and look forward to the next step of the project.

Thank you!!

Appendix E

Preliminary Report: Participant G4

PRELIMINARY REPORT: PARTICIPANT G4

Biography

This participant was somewhat of a late bloomer when it came to golf, only taking up the game at age 22. However, four years later he was competing at the A level, thus had made up ground quickly. The course where data collection took place was familiar to the participant, having played it approximately 60 times previously. This was his fourth competitive event of the year which belies the amount of golf he has played so far. Recreationally the participant has played 40 to 45 rounds, to which can be added approximately six hours of weekly practice. It can be assumed that playing golf is a very important part of his life.

The Round

Because of a suboptimal round from the day before, the participant was feeling very comfortable prior to this day's round, and was wanting to get off to a good start and not get behind. He felt he was capable of shooting a much better score than on the previous day, and had his objectives set: "Yesterday I made way too many mistakes, especially around the greens and on the greens and my thought process today arriving here was trying not to make mistakes, especially putting, because I am very comfortable with my iron play."

The round can be represented graphically (Figure 4). From this it can be seen that the participant's play on the front nine was rather erratic in comparison to the back. He seemed to settle down after nine and played almost error-free thereafter.

Figure 4

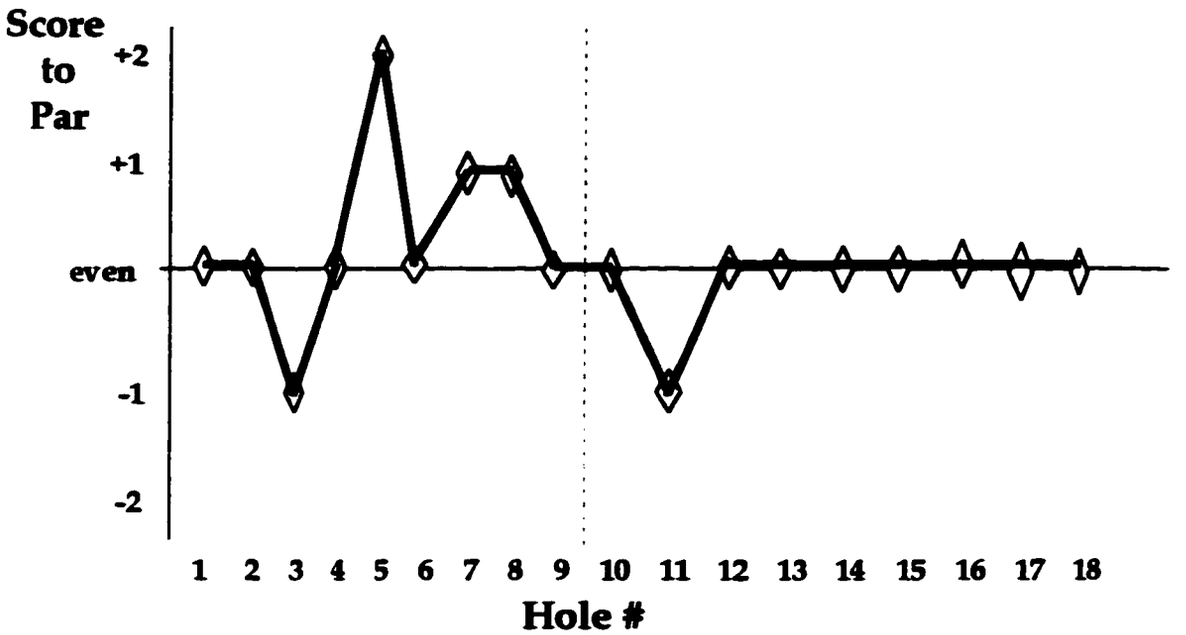


Table 7 shows that the participant played consistently well on the par fours. On the other hand, the par 3s gave him a little trouble as did the par 5s. The latter holes would typically be where one would try to make up strokes. Thus, having played them in one over par is particularly disappointing.

Table 8 shows that driving and second shots were very strong for the participant, amassing approximately 78% and 86% success rates in those areas. This demonstrates a definite confidence and consistency in the participant's long game. Unfortunately, his success on first putts was only around 17%. This could reflect a very weak putting stroke; however, it could also be an indication that his approaches were not close to the pin, making first putts very difficult to sink.

The Day's Shots

Successful (S)

In the ensuing section, each successful shot hit during this round is noted, along with some insight as to how it was accomplished. Thus, each successful shot bears a numerical reference in parentheses, signifying the hole number and shot number being described. Any positive thoughts, feelings or strategies that seemed to accompany or precede the execution of the shot are noted. In cases where the informant's own words strongly illustrated the scenario, thoughts or emotions preceding a particular shot, an excerpt from the post-round interview transcript was included. Finally, the category tag or tags for each shot are recorded, again in parentheses.

	Par		
Rating	3	4	5
VB (+2 or more)	0	0	1
B (+1)	1	1	0
G (even)	3	8	2
VG (-1 or better)	0	1	1
Summary + / - Par	1 OVER	EVEN	1 OVER

Table 7

Table 8

Shot									
Hole	**Drive**	**2nd Shot**	**3rd Shot**	**4th Shot**	**Putt # 1**	**Putt # 2**	**Putt # 3**	**Score (Par)**	**Rating**
1	**S**	**S**			**U**	**S**		**4 (4)**	**G**
2	**S**	**U**	**S**		**S**			**4 (4)**	**G**
3	**S**	**S**			**S**			**3 (4)**	**VG**
4	**S**				**U**	**S**		**3 (3)**	**G**
5	**U**	***P, S**	**S**	**S**	**U**	**S**		**7 (5)**	**VB**
6	**S**	**S**			**U**	**S**		**4 (4)**	**G**
7	**U**	**S**	**S**		**U**	**S**		**5 (4)**	**B**
8	**S**				**U**	**U**	**S**	**4 (3)**	**B**
9	**UB**	**S**	**S**		**S**			**4 (4)**	**G**
10	**S**				**U**	**S**		**3 (3)**	**G**
11	**S**	**S**			**U**	**S**		**4 (5)**	**VG**
12	**S**	**S**			**U**	**S**		**4 (4)**	**G**
13	**S**				**U**	**S**		**3 (3)**	**G**
14	**S**	**S**			**U**	**U**	**S**	**5 (5)**	**G**
15	**S**	**SB**			**U**	**S**		**4 (4)**	**G**
16	**S**	**S**			**U**	**S**		**4 (4)**	**G**
17	**S**	**S**			**U**	**S**		**4 (4)**	**G**
18	**U**	**U**	**S**		**U**	**S**		**5 (5)**	
Totals								**74 (72)**	
S	**77.8%**	**78.6%**	**100%**		**16.7%**	**86.7%**	**100%**		
SB		**7.1%**							
UB	**5.5%**								
U	**16.7%**	**14.3%**			**83.3%**	**13.3%**			

Legend:

S: Satisfactory
SB: Satisfactory, but
UB: Unsatisfactory, but
U: Unsatisfactory
*P: Penalty stroke

Some shots were just well executed and the participant had no preceding or concurrent thoughts to offer as insight regarding his mindset when he made them. Those shots are not described in the following. (S = subject; I = Interviewer)

(1,1) S: My first tee shot, just get the ball in play somewhere to have a chance in making an easy par, not really thinking about birdies that early in the round, if they come it's a bonus. But definitely to get a couple of pars under my belt before getting to the more difficult golf holes.
I: So do you feel that you were focused right off the front, right off the start?
S: Yeah. When I got on the first tee, I made it a point today, to pick out the targets that I was trying to play to from the drive, and then all the way through to the second shots, making sure, trying to keep the ball as much in play as I could. (Simplify; no pressure; target)

(1,2) Target.

(2,1) S: I also on the tee, look at where the pin is on the green, if it's left or right. I try to play to the widest part coming into the pin if I can. I don't hit the ball perfectly all the time obviously, but I do try to make the second shot easier by playing to one side of the fairway or the other. (Course management)

(3,1) S: Third hole, really just getting up and making sure, trying to hit the ball in the fairway. It's wide open, it's a very simple driving hole. Just trying to make solid contact off the tee, and leaving myself a short club in. (Simplified; course management.)

(3,2) Keep the ball short of hole.(Good strategy)

(4,1) S: Getting to the fourth hole, again thoughts from yesterday came into mind. I hit not a very good tee shot yesterday on the par 3 and I was very conscious of that today. The pin was somewhat of a sucker pin, what I consider to be a sucker pin, it was way back, way back right and...I just basically wanted to keep the ball below the hole, anywhere below the hole and put a good swing on the shot. (Distraction control; strategy; simplified)

(5,3) I: ...So you've just blown it into the river.
S: Uh huh.
I: You're trying to collect your thoughts, your composure as you walk to the drop area?
S: I'm thinking of trying to make it a bogey. I'm trying really hard to keep the ball into, or put the ball into a position where I can possibly make a bogey. (Strategy)

(5,5) S: I still felt I could get it up and down. (Confident;)

(6,1) S: ...And again reflecting on what shot I hit yesterday, it dictated to me today what I wanted to do. Again, I made a mistake yesterday which cost me, and today I didn't want to repeat that mistake. Setting up on the tee, I knew the target I wanted to play to because again, having played here many times, there are certain targets that I see through the fairway, that I have to play to, to get in position for the second shot. (Lesson; target; strategy)

(6,2) S: ...I was actually pleased that the pin was up on a plateau, on the right hand side, and I wanted to be either short of the left side or up on the plateau if I could be. Being very careful not to hit it past where some of my competitors hit it, I didn't want to have a downhill coming back. So I really actually underclubbed on my second shot there to make sure I was gonna stay below, and if I got a favourable bounce, it would have rolled up the hill. (Strategy; smart)

(7,2) S: The second shot was a punch out into the fairway. Again, I was basically set to accept the bogey, and not more, and if I did hit a good third shot, maybe a par. But definitely bogey was in my mind, and taking a higher number out of it. (Smart/conservative)

(8,1) S: I knew I had the right club in my hand. (Trust)

(9,3) Confident to get it up and down. (Confident)

(10,1) S: Played it very well yesterday, again reflecting on what I shot, what club I hit yesterday, it made decisions very easy today. (Lesson; good reflections)

(11,1) S: Number 11. Again, here's where I felt the golf course turns around a little bit and becomes accessible to birdies.
I: Were you standing on the tee thinking birdie?
S: Uh, thinking of hitting a good tee shot, and then thinking of birdie. The tee shot there to me is very important. Again a reflection on yesterday, I hit a very poor tee shot and blocked it out to the right into the right bunker. Had the same target picked today... (Simplified; aggressive; lesson; target)

(11,2) S: Well, with the second shot, the five wood, I knew I had the right club in my hand. I know I hit the five wood 220 to 225, and the ball was at the 225 marker. And again, after the good swing on the tee, I knew I could put another good swing on the five wood. (Trust; confident)

(12,1 S: The 12th hole? Basically, it's as open as a driving range...
I: Do you swing differently when it's open like that?
S: I try to control the fact that I shouldn't be over swinging because it is so wide open. Again I focus somewhere on a target and try to hit that target, even when

it's wide open. I had just played in (place), and it was very easy at the course that we played up there to lose your focus, because it was so wide open. And it taught me a lesson there that on every shot you've got to try to focus on the target and do your best to try to swing at the target... So, I still work hard to pick out a target and focus on the target with my tee shot. (Target; lesson)

(12,2) S: The second shot was the type of a shot where again, what I consider a sucker pin. Very, very back right up on the second tier, too much club gets you into all kinds of trouble. And that's the last thing I wanted to do was to get above the hole and get myself into trouble. I thought I was hitting the club that would have gotten me to the second tier but not over the green. (Conservative/smart)

(13, 1) S: Again, a very tight left pin behind the bunker. My mind set was to make sure that I didn't go after the pin. At this point in time it wasn't a hole I was going to try to attack it, and knock it in real tight. I played to the right center of the green...(Smart/conservative)

(14,1) S: Fourteenth hole, now I'm looking to get one of the other birdies that I was looking for. Again, played the hole very well yesterday, and I knew if I hit a good drive, I'd have a very excellent chance of making birdie today.(Aggressive; good reflections)

(14,2) S: My second shot, three wood, I was a little further back...today than yesterday, but I still felt that with a good swing, I could get it somewhere around the green, where it would give me an opportunity... I felt a lot more comfortable on the back nine with my woods, and my three wood there. (Confident; comfortable)

(15,1) S: Went to the 15th tee hoping to put a good swing on, or trying to make a good swing on the tee shot again. Keeping the ball left if possible, because there are trees all the way down the right side and I've been in them many times over the years. So those things bring back your swing thoughts or your swing process when you're standing on the tee. Set, pick my target and hit the ball very, very solidly at the target that I was picking, with a bit of a left to right or right to left, I knew I wasn't going to get into too much trouble. Because the target splits the fairway. (Simplify; lesson; target; conservative/smart)

(16,1) S: Thoughts of yesterday's shot where I overclubbed, the only thing I made sure of today was that I didn't hit as much club as I did yesterday. I learned from yesterday's mistake. I hit a five wood, and made sure I kept it on the left side to keep the blockage from the right hand side trees out of the play. And I knew the worst I could make from that point was gonna be a four. (Lesson, confident)

(17,1) S: Got to the 17th hole, again a very demanding driving hole. Thoughts of maybe hitting a three wood to try to keep the ball in play. And then I said yesterday it was positive, I hit a very good drive yesterday. So I took the driver out and hit a very

good drive again today. Not having the fear of trying to hit something more controlled.
I: So, you just let it out a little bit?
S: Yeah. Just hit it and had the confidence today. (Good reflections; aggressive; confident)

(17,2) S: ...I had that hundred yard wedge, and knowing the pin was back on the right plateau, which meant possibly an extra four or five yards past center, I knew I had to hit the hundred yard wedge a little bit harder. I was in the rough slightly which I felt would compensate for the extra distance. Again, very aggressive, I targeted myself to the pin, not trying to play left or right or short, tried to focus right in on the pin... (Good assessment; aggressive; target)

(18,3) I: ...oh ya, you were in the bunker...
S: [With an] excellent lie; actually it was, they must have just watered the fairway I was 122, 123 yards to the middle of the green, and I'm very comfortable with that shot because, again, I've played it many times at my home course and just reflected on the shots on a certain hole that I'd hit there. And it was exactly the same type of shot so, the reflection on what I'd done previously influenced my shot on that last hole. (Comfortable/confident; good reflections)

Successful, but (SB)

This section describes shots that were well executed but which did not terminate ideally. In other words, the result was mediocre. The same format as was used in the preceding section will be repeated here.

(15,2) Didn't hit it solidly, it should be his bread and butter shot; still had 20 feet.

S: The next shot was a bit of a gamble. I have a certain club in my bag which I hit 100 yards, when I hit it solid, real, real solid. I was at the 100 yard marker and I knew I had to hit it real solid to get it to the pin, and I didn't hit it very solidly. I came up 20 feet short. (Weak execution)

Unsuccessful, but (UB)

This next section describes incidences of shots that were poorly executed but which did not trouble the subject for the subsequent shot, therefore, another version of the mediocre shot. Again, the same format as the previous installment was observed.

(9,1) Tried to hit it too hard, smother-hook warning in the back of his mind; got a very lucky break. (Negative thoughts; swung too hard; lucky break)

Unsuccessful (U)

The next component encompasses information pertaining to this participant's unsuccessful shots of the day. Post-round interview transcript excerpts were again included where applicable, as they lent depth to their respective events.

Again, some unsuccessful shots were only described by the informant as having resulted from a bad swing or execution. As such, they are not included in the following segment.

(2,2) Wasn't sure it was the right club and went ahead anyway. Felt it was a mental mistake.

> S: ...I ran into my first mistake. I wasn't sure of the club I had in my hand and I hit a really bad second shot with a very short iron.
> I: Were you thinking of perhaps changing that club?
> S: No, I felt that I could go down the shaft and try to maneuver something out of it, I stayed with the club that I had in my hand although I wasn't quite sure if it was the right club - even knowing the yardage.(Doubted club)

(5,1) S: Uh, thinking on the tee that it was a type of a hole that you can make a big number on... That's always in the back of my mind, when you get to holes that don't set up with the driver where you have to lay up and there's trouble. Try to think about keeping the big numbers out of your score. I put a very, very bad swing on a five wood.
I: Was there extra tension there you think, in your arms and your grip?
S: Yes, absolutely. (Negative thoughts; tension)

(7,1) His last thoughts were, don't smother. They affected the shot. (Negative thoughts)

(7,P1) S: Not too aggressive on my first putt. I had maybe a 15-footer, breaking slightly right to left. And again, playing very conservatively, a s I do most of the time, was willing to accept making a bogey. That was my mind set. (Tentative)

(15,P1)S: At this point in time, I'm kinda overreading a little bit. (Poor assessment)

(16,P1)S: And then hit a very, very bad putt. It was probably the worst putt to that point that I had hit. I was going straight uphill, little left to right break, and just went into a coma. Just never hit it...
I: What was different about that?
S: I just went blank. (Mental lapse, lost focus)

(18,1)S: And I'm thinking, just hit a good tee shot. And don't leak it right, 'cause I have a tendency to on that tee, from that tee, leak the ball to the right, which means coming off the shot... And that's again when I'm thinking don't leak it right, the hands or the body motion tends to take over, and I end up hitting an ugly shot. (Negative thoughts/reflections)

(18,2) S: I was trying to hit the three wood real hard, 'cause I'd hit a couple of real good ones... But I'd just come off a really poor tee shot and again,, I hit a very poor fairway three wood. (Over-aggressive; negative reflections)

(18P1) S: I had a very makeable 12 footer, right to left break. And felt that at least I should get the ball to the hole. And I chickened out on it. I know how quick it is coming down that slope, and I was protective.
I: You just didn't want to get beyond it.
S: Yeah, I was very, very protective... And hit just one of those ugly putts like I hit on 16. (Tentative)

Transitions

Also insightful to look at are the transitions that occurred between holes, in those instances where a good hole was followed by a bad hole, or vice versa. As well, the player's comments following each hole paint a picture of how the round was progressing. Evidence of the thoughts, feelings and strategies that the participant experienced at these times is depicted in the following passage.

The first hole was played in par, which the participant accepted without much revelry:

> I felt that I hit three very good shots and had a very easy par. I was a little disappointed that the putt didn't go in, but you know, under the conditions of the green, I was quite satisfied with that start."

The objective for the participant on every round is to hit as many greens as possible. The second hole, therefore, was a bit of a letdown:

> S: Actually I was disappointed because again, as I said earlier, I try to hit 18 greens. That's kind of my objective when I tee up on the first hole. And having only played one hole and running into missing the green on the second hole, it was a bit of a disappointment inside - to myself.

Just the same, the participant was able to birdie the next hole, the third, and attributed it to playing the hole smartly. On the previous day he had started off quickly, with several birdies right off the start. Apparently, things went sour soon after: "And again, the thoughts from yesterday crept in a little bit, you know, getting under par early; the challenge is to try to keep it under par and build on that."

The participant then overcame thoughts of yesterday's poor play and made a good par on the par 3 fourth, having played the hole the way he wanted to.

Unfortunately, the participant was predisposed to negative thoughts as he teed up on the next hole, the fifth. The result was a double bogey seven. That was one more than he thought he would make. Nevertheless, he filed it away and quickly turned his attention to the next hole.

He learned from a mistake made in the previous round, and was certain how he wanted to play this par 4, the sixth hole. His strategy culminated in a par.

The seventh hole, another par 4, was more problematic. The participant was however, ready to accept bogey there:

> Again, I was basically set to accept the bogey, and not more, and if I hit a good third shot, maybe a par. But definitely bogey was in my mind, and taking a higher number out of it. So once I had hit it out of the trees, and back into the fairway, five was an acceptable score on that hole for me, which I ended up making.

This was followed by another bogeyed hole.

S: The biggest disappointment obviously was the fact that I three putted the hole for a bogey. That was not what I had planned in my mind. I was quite happy to try to get out of there with a three. I hit a very bad first putt.
I: So, are you chastising yourself again, or saying anything to yourself?
S: Uh, well, obviously not very happy, because you know to me, that's considered another mistake...As I said earlier, I try to play a round of golf by making as few mistakes as possible.

The participant followed up with a good par on nine, which he acknowledged as a positive way to make the turn. He considered the tenth hole to be one more difficult hole before an easier section to the course came up.

S: ...To make three on that hole is a very, very good score. And I was quite content to take and accept a par. And then move on into what I consider is the easier part of the golf course, which was ahead of me.
I: So on this easier part, are you changing your style at all, starting to be more aggressive yet or...
S: No, just trying to hit the ball solid, and knowing that I can make one or two birdies or three birdies coming in. The opportunities would be there, and I knew they would be there if I hit the ball solid. So again, just moving back into trying to make sure I put a good swing on every shot that I had to make on the back nine.

This positive and anticipatory perspective was likely to have facilitated the birdie on the next hole, the only one on this nine. The participant was very satisfied, and outlined his objectives for the balance of the round:

Well, at this point in time I brought it back to two over, and in my mind I said I'd like to try to get to one, maybe even par. Because I knew there were some other birdie holes coming up. But at that point in time I set a goal for myself that I would like to see if I could get back to even par.

On the next hole, the 12th, the participant produced a very satisfying par four. He was also pleased with the way he played the next hole, which he also parred (a par 3).

Although he parred the 14th hole, he was quite disappointed:

S: Well, then I was thinking that possibly even par for the day would be out the window, because the next few holes are very, very defensive, for me , defensive type holes where if you make a mistake, again you can make a big number. And again, I'm trying to protect a decent round of golf by not making too many more

> mistakes. So, at that point in time, when I missed the birdie putt there, I felt for sure that even par was out for the day. Unless something really spectacular was going to happen further on in the round.

Thus, protective play seemed to be in order for the balance of the round, yet the participant left the window open for something unanticipated and favourable to occur. What transpired was completion of the rest of the holes in par, attaining a one under par score for the back nine, and an overall score of two over. Still, the participant hit nine of nine greens on the back, thereby attaining one of his goals.

Reflections after the round were expressed as follows:

> S: Well, I felt I made what I considered four mistakes. And two of them probably I could have avoided very easily, they were three putts, and normally three putts you should be able to avoid. The other ones were just physical mistakes, poor execution of the golf swing. And that'll happen sometimes. But the mistakes that I really feel badly about are the three putts. At this level, you just can't afford to give away easy shots like that. Other people don't, good players don't, and if you want to be a good player you can't either, you know? I thought four shots today, I would have been much more happy without making those four mistakes.

Regardless of his feelings for this particular round, the participant does exhibit some very real strengths. Of primary note is his perspective about the game. It continues to be one that he enjoys, and resolves that if you can't have fun out there, why bother. His comportment on the course is very stable, very consistent. The momentary problems that invariably occur during a round do not seem to alter the pace or routine with which he plays.

> Temperament I think is a good word. I've always looked at golf as a game. When I was a little younger I used to get really upset about not playing well, and taking it way too seriously. I'm really enjoying playing golf a lot more now because I'm accepting the fact that it's a game, it should be enjoyed, you can play well by accepting it as a game.

Appendix F

Report Confirmation Sheet

UNIVERSITÉ D'OTTAWA
UNIVERSITY OF OTTAWA

FACULTÉ DES SCIENCES DE LA SANTÉ
FACULTY OF HEALTH SCIENCES

Dear Golfer:

Please check off the answer that most accurately represents how you feel:

1) The quotations used in the report accurately reflect what I said during the data collection interview.

Agree _____ Disagree _____ Modifications required Y: ___ N: ___

Comments _____

2) The interpretation of how the round unfolded is accurate in the text, graphs and tables included in the report.

Agree _____ Disagree _____ Modifications required Y: ___ N: ___

Comments _____

Date: _____ Signature: _____

May I remind you that no reference that could identify you will be used in any report or in the final thesis. Therefore, you can be assured of continued confidentiality and anonymity.

Thanks very much for your input.

Sue

To be returned in enclosed envelope to:

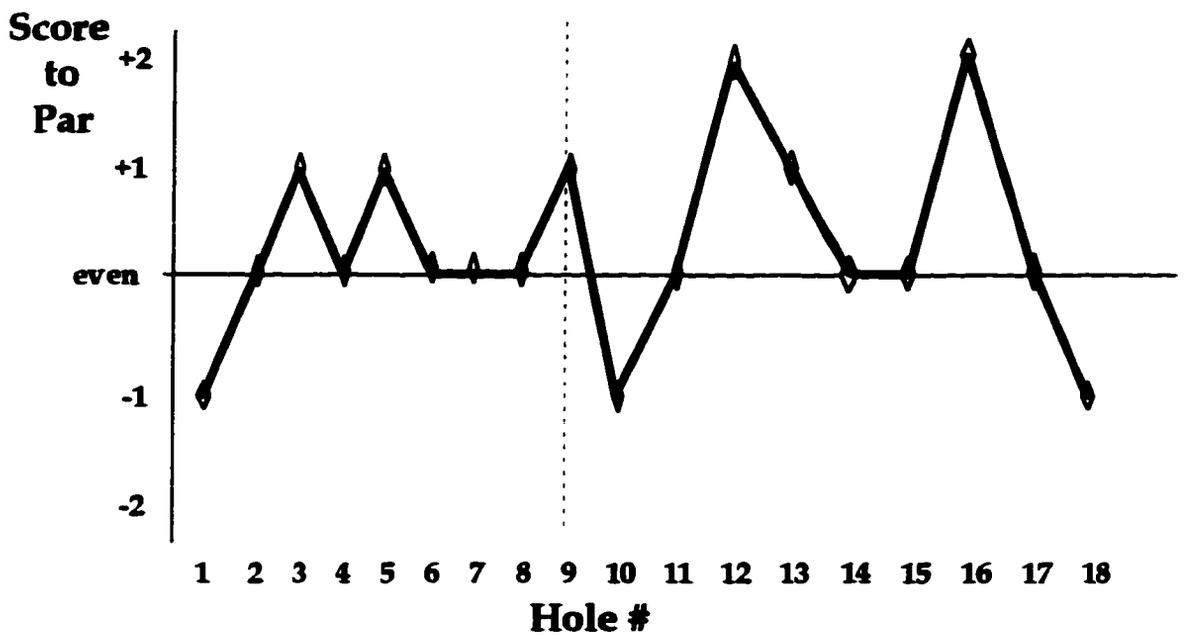
Sue Malo
31 Fifth Avenue
Ottawa, Ontario
K1S 2M3

For additional information please contact me at (613) 233-6362 or by e-mail at s061149@aix1.uottawa.ca

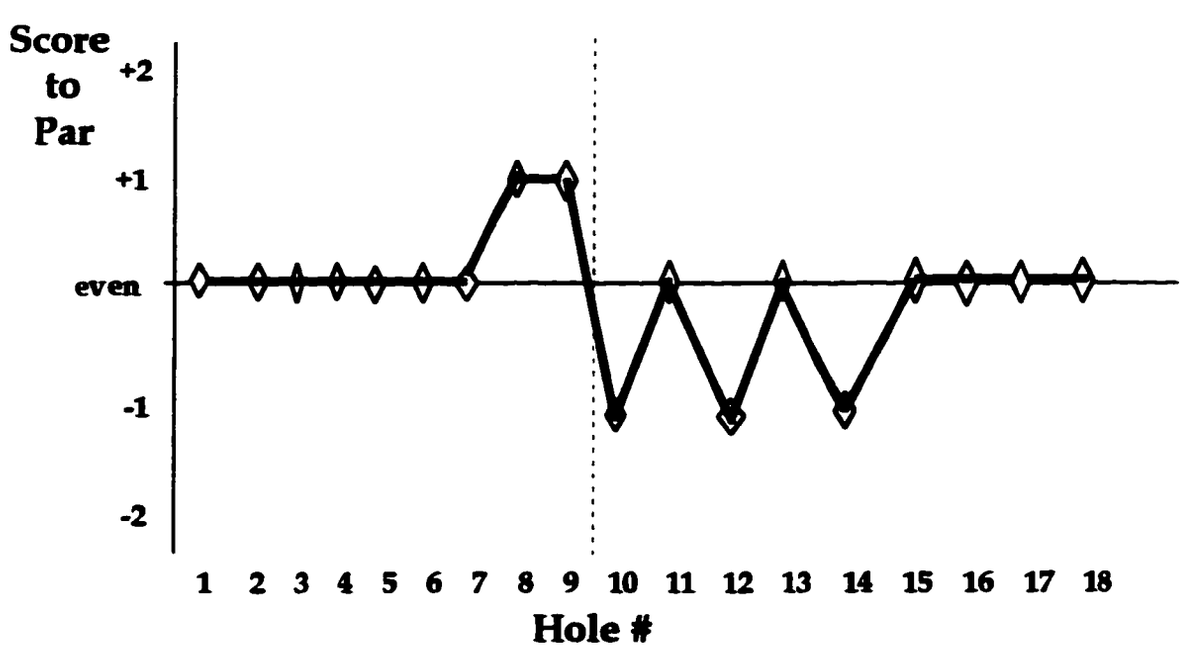
Appendix G

Graphs of Participants' Rounds

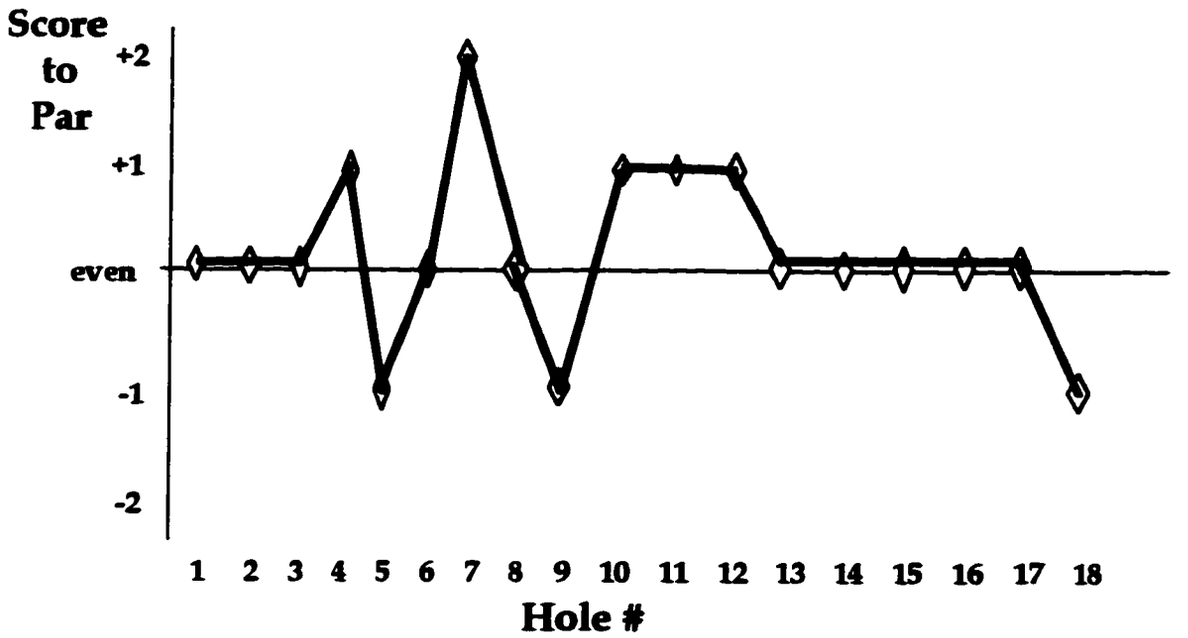
Participant G1



Participant G2



Participant G3



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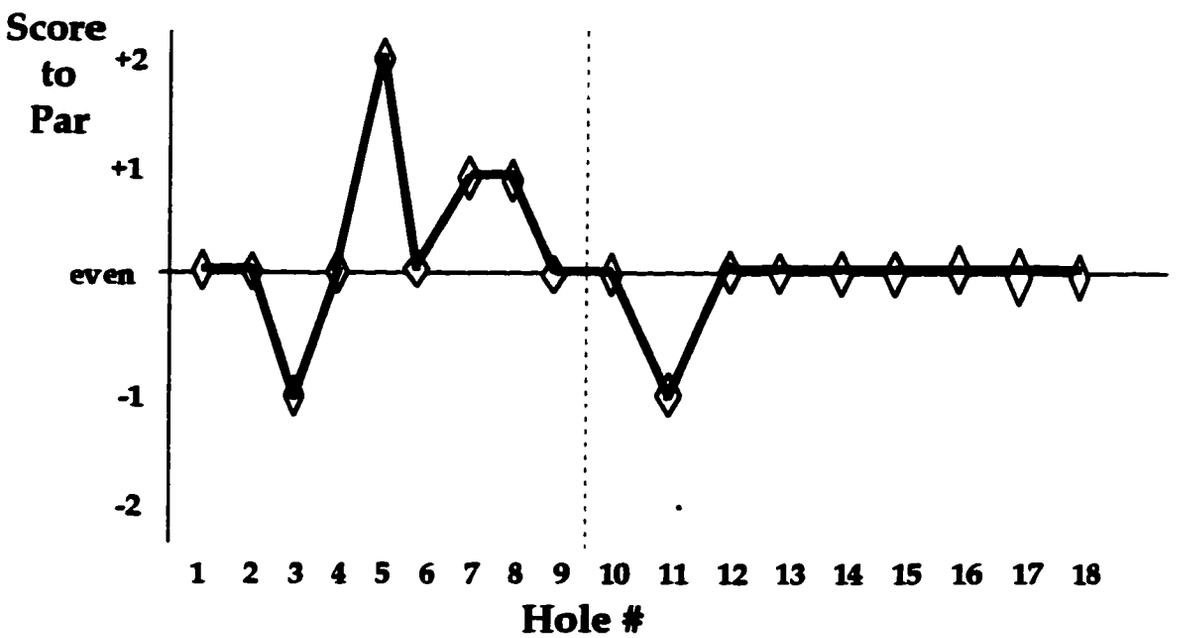
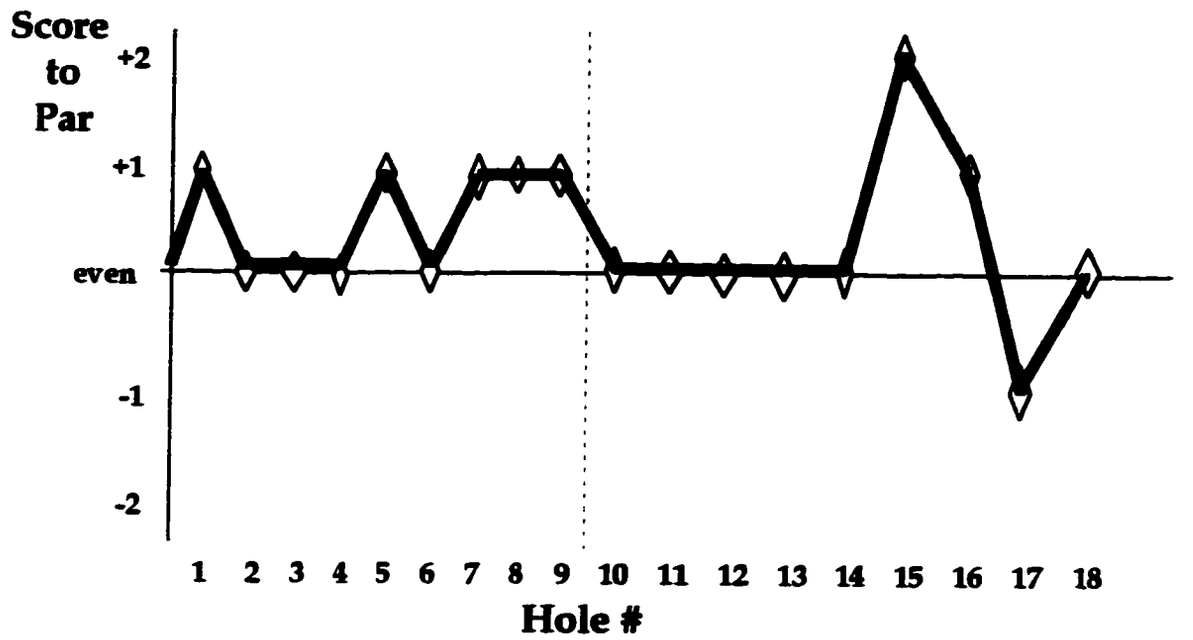


Participant G5



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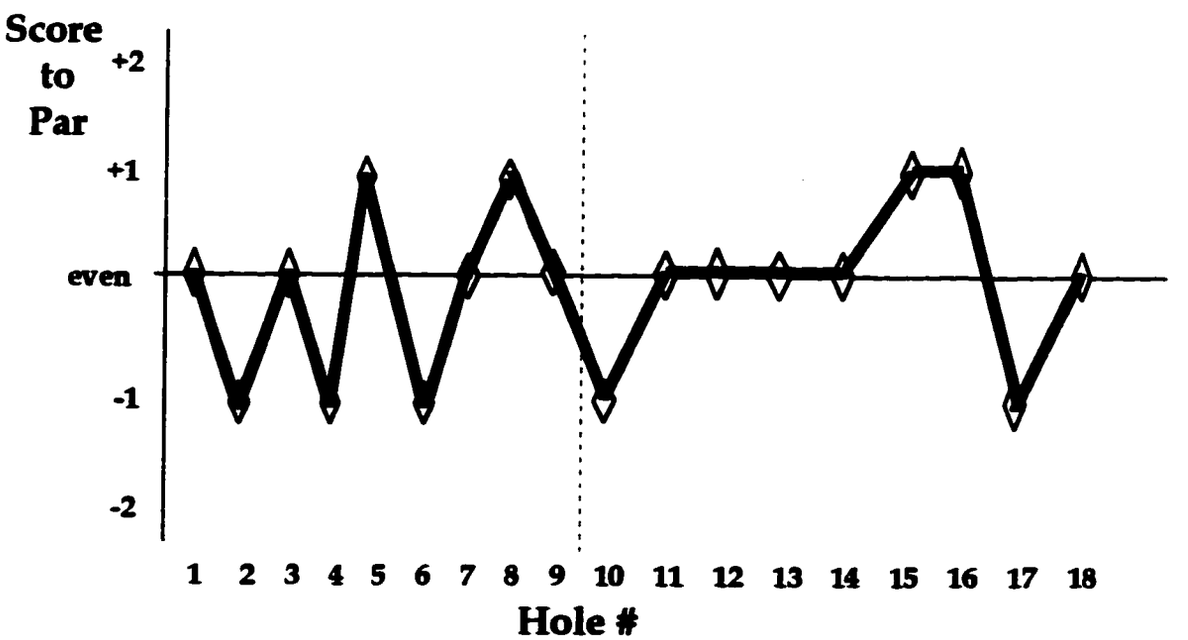
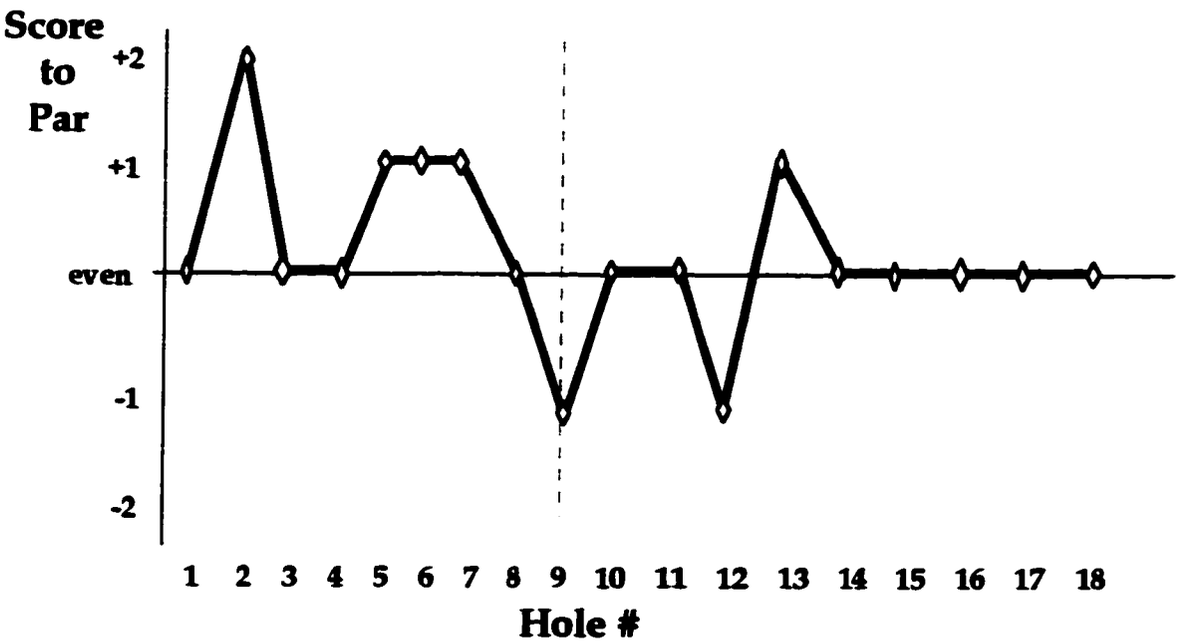


Participant G7



Appendix H

Report of Transition Periods of Participants' Rounds

REPORT OF TRANSITION PERIODS OF PARTICIPANTS' ROUNDS

The following passages convey the six other stories of this study, focusing on the periods of transition between holes. Where possible, the players' words have been added to illustrate how the round progressed, and to describe the thoughts, feelings and strategies that were evident throughout the day.

Golfer 1

This participant started the day off well:

I: So, you started off with a birdie.
S: Yes. So, I was happy with that...
I: When you come off with a birdie to start, how were you feeling?
S: Usually I'm behind the eight ball when I'm playing golf, so I usually start off poorly. I don't know what...maybe it's mental preparation, or what have you, or maybe it's because I'm just a little nervous on the first couple of holes. So my swing is not the same. So, yes, I was definitely happy with that.

He then made a great par from a difficult position on the second hole:

S: ...So, anyways it's a very good start for me and I'm happy with that, because number two is one of those holes, and you can ask any of the players out here, they're just thinking...they know they're going to bogey it, and if they make a par, then they're walking away really happy.
I: So, par's a great score there. Something to be happy with.
S: Exactly. So, I'm happy after two holes.

After bogeying the third hole, the informant's disappointment was contained: "So, I was disappointed there, but it could have been worse." The bogey on the third was followed by a par on the fourth hole:

S: ...It's one of those holes that I know it's an easy birdie hole, but you can make a big number on that hole as well. My game has been focused, not trying to get the birdies anymore, I'm just trying to be a little more consistent out on the fairways, and scoring-wise anyways.
I: So, you're not taking the same chances.
S: Yes. That's a hole I should have taken a chance on, or taken a little more aggressive approach. But I'm still happy to walk away with a par, considering my drive, considering my second shot. So, I'm quite happy with that.

I: So, you're still in there, you're still in the game at this point.
S: Yes, oh yes. And I'm still even par.

A bogey on the fifth hole is undocumented because the participant could not recall it. As well, we didn't have the aid of the video tape replay, due to technical difficulties. Thus, no perspective is offered as to how this second bogey was handled. It was, however, followed by a par on the sixth hole, about which there was no subsequent commentary.

On hole number seven the participant had a bit of a tough break and ended up making par:

S: ...It's a birdie hole, I was disappointed coming away with a par, but from where I was... So it was one of those unlucky type of shots.
I: One of those, out-of-your-control-consequence things...
S: Exactly. Yes. It happens, and it happens quite often.
I: And you normally react how to these things? What does it do in your gut?
S: Well, I just go, I can't believe that, because that's the way I wanted to play the shot... You know there are only a few holes out here that I knew I would become aggressive on, and that was one of them. And I hit the shot exactly the way I wanted to, and it just didn't work out. So, I was disappointed, because I know it's a birdie hole there for me.

The eighth hole was parred without much fanfare. Hole number nine was bogeyed, also without a great amount of reaction.

S: ...I was disappointed, you're always disappointed whenever you've got a short iron to a green, and you don't make par or don't have a chance at a birdie, so...
I: So, you're disappointed...What do you say to yourself amidst that disappointment? Are you cursing at all under your breath, or...
S: No, no I'm not. I'm not... I wasn't that upset. I'm not very upset. I'm upset usually when I hit a bad putt. So, when I hit the putt, I might be upset in that I misread it, but I knew I had a good putt the hole before, so it was one of those give and take situations. So I'm not really that upset.

Perhaps a more revealing transition occurred when the participant assessed his first nine holes. He was pleased enough with how he had scored considering the conditions, in

other words, the wind. He was made aware how most of the field was doing, and was then no longer concerned about making the cut. He felt that was out of the picture "unless I really blow my brains out". He felt he was starting to hit the ball better in the latter half of the front nine, so that gave him a confidence lift. As well, he knew there were opportunities for birdies on the back nine, and he was looking forward to playing those holes:

> S: I knew that the back nine at (place) is a fairly, it's not easy, but there's a few more opportunities than the front nine in making a few birdies. So, I just wanted to keep the numbers consistent - make the pars, be conservative on probably, let's say, five out of the next nine holes. But four of them I knew I could be aggressive on. And I'm happy, I'm looking forward to playing aggressively on a few holes, as opposed to laying back like I did on the first nine.

This enthusiasm was rewarded with a birdie at hole number 10. His thoughts following that were:

> S: So anyways, I was happy with that, it was a good start for me, on the back nine, and that's exactly what I wanted. I was back to one over par, and I knew that if I came in... Then I started picking a number, I started saying okay, well at most 73, 74. I was thinking a little bit more of a number there. And I was also thinking that I could be under par, so...

An uneventful par at 11 was followed by a double bogey on the par three 12th.

> S: ... So, I ended up with a double, and it's just like someone just punctured my tires. It's one of those frustrating...
> I: What did it feel like?
> S: It's happened to me before [being too lazy to go back and get the right club], so I felt bad. I felt that I knew I should have gone back for that... Because it's one of those, I knew I hit a good shot off the tee, I knew I could have gotten up and down with a different club, so I played the hole completely wrong.
> I: So, were you angry at yourself?
> S: Yes, oh yes!
> I: And were you saying things to yourself?
> S: I think yes, I was cursing at that point, yes. I think I lit a cigarette right after that too!

Thus, the participant was upset at having committed the double bogey error, one due to a mental mistake. Subsequently, he did experience some tension and perspiring palms, but toweled off and took a few deep breaths to try to relax. Unfortunately, he bogeyed the very next hole, the 13th.

> I: So, have you just gone double, bogey?
> S: Double bogey and then a bogey. So I'm three over on the last two holes.
> I: What does that feel like?
> S: Well, I'm lighting a cigarette.

This participant's performance on 13 necessitated that he hit last in his group off the 14th tee. He used this to his advantage "to cool down a little bit" and try to regroup. His thoughts quickly turned to the task at hand and he focused on what he wanted to achieve on the 14th hole. He wanted to get aggressive and try to birdie this par five. He didn't, but he came away with par. Of particular note was the significance that making the par putt on 14 had for the balance of the round:

> S: ...But the thing is, it was a treacherous putt coming back. About a two foot putt, a putt that would have made a huge difference. It did make a huge difference in my game, not that I completed my round on the best scoring-wise. But I probably would have gone a little bit beserck if I'd missed that, or three-putting that.
> I: So, that could have been a turning point.
> S: Yes. And it was, I think. For me not to blow my round. If I had missed that putt, I know that I probably would have lost interest, stopped caring, and I could have easily bogeyed out, or something like that...So, I was happy there. I shouldn't have been happy with a par there, but I was happy with the way I played the hole. I was very happy there.

The participant was satisfied with his par at the 15th hole: "...And it's not a hole you're expecting to birdie, so just walking away with a two putt...I'll take a par there any day and walk away."

However, being distracted from an occurrence at the previous green seemed to set the tone for the participant's play on the 16th. It resulted in another double bogey.

> S:... I was really, really upset because that is one of the four or five holes on the back nine that you get aggressive on. You should be able to birdie. All you have to do is play, all I have to do is play the hole properly. And I played it completely wrong. I didn't hit one good shot there. So I didn't deserve anything there. But double bogey... I was swearing... as soon as I putted out probably... and then that was it.

So the participant acknowledged his bad play, bad decisions, cursed to let out his frustration, and moved on to the next hole, which he parred. He also birdied the final hole, which he approached with determination: "So you're coming to the home hole, and I'm thinking birdie. There's no two ways about it." The resultant birdie made him happy, but not satisfied for the round:

> ... You're never satisfied though. I play to a scratch, so I'm supposed to every once in a while actually shoot to my handicap [laughs]. So I'm never happy when I'm over par.

His assessment of the round is concise:

> ... Five over. And really, all it was was two holes. One hole where I think I was too lazy to get another club, although I played fairly good shots all the way around. And the other hole was just a lack of concentration, I think. So those were the two mistakes I think that sum up my round today. Other ones, I mean you hit bad shots here or there, but usually you can recover, at worst [make] a bogey. Double bogeys are not good when you're playing [Class] A golf... Yes, it takes a lot of steam out of what could have been a much better round.

This participant's greatest strength beyond his physical skill is his ability to remain quite consistent emotionally, not being very expressive or reactive to shots. He contends that it is natural for him to be that way, part of his character, and is a behavioural aspect that is quite necessary in what he does for a living, thus is reinforced daily.

His limitations are few. Of note is his lack of acknowledgment of things that he did well. He admittedly tends to focus on his mistakes in a round. He also has the misfortune of having to deal with a couple of physical ailments of a structural nature; thus, getting comfortable and loose can sometimes pose a problem, as can inclement weather, which can make the golf swing that much more of a physical challenge.

Golfer 2

The first hole was referred to by the respondent as an easy par; he was feeling quite well after it: "I felt fairly relaxed; it might have been a different situation if I was well in contention, like leading the tournament or something."

Although he made par at the second hole, the participant was a little disappointed in not making birdie, and even tried to console himself, saying to himself that par was not a bad score: "So it was kind of disappointing not to make a birdie, but I didn't get too greedy because par's a good score."

Parring the third hole was also satisfactory: "So that was good. It's not a difficult hole; if you have some decent length, it's not a difficult hole."

A par at the fourth hole elicited the following: "Kind of a missed opportunity a little bit. But, not too bad... You can't really complain a lot about pars."

Pars on holes five through seven occurred with virtually no commentary from the participant.

After a really consistent string of pars, holes eight and nine gave the subject a little trouble, and he bogeyed both holes. He was not happy.

> S: I'm thinking, that's about the worst I could have shot. I didn't play that badly, and I haven't really made any putts. I've parred two par 5's, and I've missed two

five foot putts or six foot putts for par, on 8 and 9. So that's about the worst I could have shot. So obviously I'm not that pleased with the performance there.
I: Are you doing any talking to yourself here?
S: Oh yeah, lots!
I: What kinds of things are you saying?
S: Well, just basically trying to picture a way to get back in the round I guess. Try to figure out a way to get back in it, knowing that I haven't played a lot of golf lately, and now I know I've got to go out and shoot five under on the back nine, which is hard to do when you haven't played that much golf lately. You don't have a feel. And there's no, no indication that I'm striking the ball well. But I felt okay.

Thus, despite the disappointment, the participant admits that he's feeling okay and looking for some way to make it happen on the back nine.

S: Plan on the tenth tee was to try to block everything out and just try to hit a good shot. That's all you can do. One shot at a time.
I: You're still staying within your routine of one shot at a time.
S: Tried to. Tried to, yeah. Mind you, I'm on the verge of losing it now because two over par, after shooting 7 over yesterday, I'm nine over par after 27 holes. It's not what I had in mind when I started the tournament.
I: So, instead of letting it just go to pot, what did you...how did you keep it going? How did you keep your focus?
S: I don't know. I was just trying to stay patient. And I thought that maybe if I made one birdie, I could get rolling.

Indeed, that one birdie came at the very next hole:

S: Little chip went in, and that turned the round around. Right there.
I: It was your first birdie, and that's what sent you going.
S: That's right. It turned things around a little bit. It is a game of momentum, you know, this game...So momentum is a big factor. If you can get yourself going a little bit, and kind of create something...

The interesting thing about that first birdie was the participant's reaction to it. Although his caddie was clearly very excited, the participant just remained calm and cool. He feels that maintaining a level comportment is essential for consistently good play:

S: My style has to be like that. If I start going up and down like a roller coaster...I mean, I don't think you can play like that myself, successfully anyway. You can have a few good rounds, but on a consistent basis you'll drive yourself crazy if you're like a roller coaster, you know...

I: So, you felt pretty good inside after that birdie.
S: I felt like there was a little bit of momentum picking up, yeah.

The next hole was a tricky par 3 on which the participant managed to save par after having missed the green.

S: So I kept the momentum going you know. It would have taken the wind out of the sails after that chip in...
I: ...So you kept the pattern going.
S: Kept the pattern going, yeah.

Another par 3 followed, also a dangerous one, but this one the participant was able to birdie:

S:...So now I'm back in the game again...
I:...You got a big smile out of (participant) on that one.
S: Big smile on that one.
I: Birdie. So that was fun, that was good.
S: That was fun. That was easy.
I: At this point you're two under on the back?
S: Yeah, I'm even par [for the round] and I'm back. And I know maybe I can make three or four birdies coming in and shoot four under or something like that, and then pressure the guys behind a little bit. I mean, that's what I'm thinking about.

So the participant is persisting, feeling there's still a chance to make up some ground and make the tournament a little more interesting.

On the 13th hole the participant missed the green again, but made a par saving putt:

I: So, that was a good save.
S: Yeah. I had to make that one. I had to save that one.

It seems as if the participant is putting a little more pressure on himself as he now has a clear objective in mind on how he wants to finish.

The par five 14th hole was reachable in two, making birdie quite easy. With this the participant was pleased. While he had a chance for birdie on the next hole, a par 4, the participant was satisfied with the resultant par: "The thought on this hole is, be happy with a birdie, but par is a good score."

On the 16th hole, another par 4, the informant had a very good chance at birdie, but had to again settle for par: "So that disappointed me a little bit, I wanted to birdie that hole. But, c'est la vie... I mean, I need to birdie these last three holes. But, guess what? I don't."

The disappointment was clear, and yet the informant was able to take these suboptimal results, file them and move on to the next task, the next hole.

> S: ...And another par
> I: So, you've had a couple of birdies get away from you in the last couple of holes.
> S: I think so. I mean I could have easily birdied those two holes; I just didn't convert on the putts. So that was the difference.

He was however, still thinking birdie on the last hole. Unfortunately, he ran into some difficulty there. On what should have definitely been an easy birdie hole, the participant managed to scrape together a par.

Essentially the round itself was good, a one under par total. However, the participant didn't make up most of the ground he was hoping to today. When asked what comes to mind when he reflects upon the round, he responded that he would think about things that went well, but it would be the bad shots that he would remember most.

Golfer 3

Since he had started the round with a little more nervousness than usual, the participant was relieved to make par at the first hole. In fact, it diminished the nervousness a tiny bit. He also parred the second hole without much reaction or commentary except, "I got two easy pars the first two holes and I know they're both birdie holes, because they're both playing short."

The participant parred the third hole as well. His expression often seems to reflect disappointment:

> You see, I'm always disappointed when I miss a shot. I wasn't big time disappointed, you know, I thought I had a chance to make it. Even if it was a 30-footer. This was a putt I thought I could make. Because I was close the first two holes I thought maybe I can make this one."

Having bogeyed the fourth hole, the informant did not appear to be put off by it. His acceptance of the bogey was evident, "That's a typical bogey. I deserved a bogey on that tee shot. So, I accept the bogey."

He came back and birdied the very next hole, the fifth, lending further conviction that he'd put the bogey behind him and was playing in the present. As is typical or a common goal of players of this caliber, the participant was able to capitalize on his strengths and birdie a par 5. His thoughts subsequent to this were, "I'm less nervous, I'm confident about my game. Game plan is fine. I'm even par, and I'm going to go through the tough holes right now. So I'm confident."

The participant made a good two putt at the next hole to par it, making him happy, and ready to take on the next hole.

However, on this next hole, the par 4 seventh, the participant had his worst hole of the day, a double bogey. It was attributed mostly to a poor decision on his second shot. As the drama was unfolding and he was hitting successively poor shots, he tried to remain calm and just make the next shot a good one. He did make a very good chip and had only a tap in to finish the hole:

> I hit a great chip there, I'm happy with that chip. It kind of made me feel better to accept that double bogey. I'm accepting a double bogey at that point. There's more holes to come... I'm trying to be more and more patient... So, I accept the double bogey. After all my bad shots, bad decision, I accept it.

The participant's strategy to be patient and accepting of his play again put him in good stead. He parred the next hole, the eighth, and birdied the one following that, which made him very happy. Finishing the nine at one over par, he felt it was an honest reflection of his play. He was also looking forward to some chances on the back nine: "I'm just thinking under par. It's par 37, and I know I can go under par because the back nine is easier, and there's a lot of opportunities for birdies, par fours, and par fives."

Unfortunately, each of the first three holes on the back nine were bogeyed. The tenth's bogey the participant felt was justified: "...I made it for bogey, and I deserved a bogey...". As it turned out all three competitors three-putted the tenth green, about which the informant offered:

> And I'm having fun with the guys, I just said to the guys before I teed it up, 'Isn't that great, we're three good players and we just had nine putts on the previous hole.' So, I'm just trying to forget that hole, and making fun of it...

In this manner, the participant was able to ease the tension, keep his sense of humor, and caused me to say, "You know, a lot of people can learn from the three of you, to play serious, but not take it too seriously." That seemed to echo the participant's

general outlook, and he added a comment about one of his co-competitors who had a particularly unpleasant round: "And (Person) is a good example. He played as bad as he's ever played and remained calm, nice to play with, and remained a gentleman. It was fun. Usually guys who shoot 85 are not very friendly out there." It would seem that keeping the proper perspective out on the course allowed the informant to continue to pursue his objectives for the day, regardless of what transpired.

His second consecutive bogey, on the 11th hole, was equally kept in perspective. It was attributed to one specific shot on which his thinking had been well developed but on which the execution was weak. "Bad shot, that's all. Thinking was right, just bad execution. And we know we're going to make some bad shots on every hole. Bad shot, that's all. I tried to compensate with a good putt, but it didn't work."

The third successive bogey finally seemed to work it's way under the participant's skin:

> S: ...Oh! Oh! I'm upset, upset big time.
> I: You don't show it.
> S: No, I'm trying not to, but it's inside, it's boiling inside.
> I: Okay, so you're upset. How do you control that?
> S: I try to put it away, and I know there's a lot of birdie holes coming up so... If I can make a birdie somewhere, it's gonna help me down the line.

So once again, a healthy perspective prevailed, the disappointment was filed away, and the participant turned his focus to what remained to be achieved.

The participant parred 13 and 14, and was somewhat disappointed at not having made birdie. Yet when asked if he was beginning to feel he was running out of holes, his response was, "Nope, nope, no. All birdie holes, right to the end." Despite this declared optimism, the respondent admitted to becoming increasingly nervous. He did allow himself

the torture of playing "What if", and was thinking more and more about score, and what one more bogey would do to his potential starting time for the next day, or even jeopardizing his chances to make the cut.

Still, the participant held it together. He saved par at 15 with a solid second putt - a 3-footer, and from an ugly drive, he made par on the 16th hole

Saving par with a great chip on the 17th hole relieved the pressure that had accumulated over the last several holes, and the 18th hole posed no threat as it was a par five. Perhaps this diminished tension contributed to better play on the final hole, as it was birdied, and was a very satisfying finish to the round.

Two strengths that the participant vocalized pertained to playing within his abilities, and persisting through some bad times. Regarding the latter, this was offered: "Even though I'm saying bad things, inside I'm fighting it, I'm trying. I'm like a pit bull. I'm trying to work hard. I'm not a quitter, let's put it that way."

In addition to these it was evident that several other points contributed to him being a solid player. Among these are his abundance of energy, positive perspective and passion for the game. These are unmistakable. As well he enjoys the camaraderie that comes with playing with the usual crowd on this tour, year after year. Finally, this participant is thoroughly considerate and respectful of his fellow competitors. These qualities, along with some pretty spectacular golf make him a player to watch and admire.

Golfer 5

A bogey at the first hole did not seem to be an issue:

I: So what does that feel like as a starting point?
S: Well, I often start with bogeys at (home course). So, I'm used to starting with a bogey.

> I: So, it doesn't automatically throw you off.
> S: No. With the years I'm playing tournaments, I've always approached a tournament round the same way. I always feel I'm going to make three or four bogeys during the round. They might come the first four holes, they might come the last four holes. I don't worry about it. I know I'm going to make 3 or 4 bogeys, usually. What I try to do is compensate. I usually get pars and 3 or 4 birdies which will offset my bogeys, and if I get the birdies without the bogeys, then I'm all set. I'm under par. If I don't get the birdies, I'll be 3 or 4 over. So I don't... a bogey never upsets me or anything. I try and stay away from doubles. And try to always be in a position where I can maneuver something to save par, or make birdie. So, making bogey on the first hole doesn't upset me or anything. It's no big deal, it's just one of those things that happens.

A par on the second hole did not produce much reaction from the informant other than him saying he was happy with that one.

On the third hole the informant became mired in so many thoughts on his first putt that he was not able to actually produce a good putting stroke on this birdie attempt. He did however par the hole but was not pleased: "I wasn't happy with my thought process on that green. Too many things went through there."

At the fourth hole, a par 5, the informant played quite solidly and made an "easy two-putt" par.

The informant was predisposed to having negative thoughts about the next hole, a par 4:

> The 5th hole is not a golf hole...That 5th hole, I just, I hate that hole. I think it's a stupid hole. There's nowhere to land your tee shot, and you can't even see the second shot afterwards, it's over 400 yards. I just think it's a stupid hole.

A pulled putt led to another bogey, "And then I was not pleased with myself again." Perhaps it was the negative proclivity towards that hole that had some effect? Yet the informant was quickly able to retain his positive perspective:

> S: It's just another one of those bogeys. I mean, I'm allowed four a round, so I got a second one. I thought I hit a good first putt, didn't go in, and I pulled the

second one. Which is going to happen from ten feet. They're not gimmes. So it doesn't upset me. I know again, from playing the course...and like yesterday, (person) was four under after the first ten holes, starting on the back side. And then he finished with four bogeys. So I know the bogeys are there, but I know the birdies are there as well. And (person) had a few birdies yesterday, and I had a couple of birdies. So I know the birdies are out there, there's no problem like that. And especially the sixth hole right back is a birdie hole, if you hit a good tee shot.
I: So does that come to mind as you're walking off the green, onto the next tee, that maybe ...
S: OK, here comes a birdie hole. Sixth hole is a birdie hole, I can get one of them back. It's still a long tournament anyways. There's no problem with that.

Birdie was not to be at the par 5 sixth hole, but par was.

S: ...I thought I had the birdie there. It brought my confidence back a bit because I hit all four shots the way I wanted to hit them, I'm figuring I'm back on target there...So I'm two over for six. Which is six over for 18. So even if I keep playing badly as I'm playing, I feel I can still shoot 75, or around 75, which would turn out to be a decent score, for the way I was playing.
I: After each hole, do you, are you thinking score down the line, your end result?
S: Yes. I'm trying to see the possibilities. Like, the fourth hole I let a birdie escape. Sixth hole, I let a birdie escape. Fifth hole I let a par escape. So I'm losing strokes that I shouldn't lose. But I'm still thinking positive. Because on the sixth hole, I hit the shots I wanted. The fourth hole I hit a good shot from the sand. I don't have any negative thoughts up to that point.

The next hole was the par 3 seventh. It produced a bogey, due largely to a very poor focus on the putting: "And I wasn't upset at missing the putt as such, I was upset at my swing thought on that putt. My concentration process was not what it should be." The informant tends to be gentle on himself in the name-calling department following a really poor effort, so his natural positive attitude resurfaced quickly subsequent to that bogey.

The eighth hole, a par 5, had another unfavorable outcome: "So that's another bogey, and I'm not particularly pleased."

Moving on to the ninth hole, the informant incurred his third consecutive bogey.

So I made another bogey and I'm really upset, but I know there are birdie holes on the back side, so I figure I still have five nine holes to play. If I can finish each

> nine holes one under par, I'm back to even par for the tournament. That's my thought as I'm leaving the ninth hole to go to the tenth tee.
>
> Since the 10th hole is a par 5, it was considered a birdie hole.
>
> I didn't make the birdie I wanted but I'm back with pars after playing 41 on the front. And on the back, if I can make pars, and get a birdie or two, I might be in good position anyways. Still shoot that 75 round I was talking about.

The informant looks at hole number 11, a par 4, as another possible birdie opportunity. It didn't happen, and he was not overly impressed with what transpired, "I got a par and it was a blah hole." The par three 12th didn't produce much more of a reaction, "Routine par again."

The informant played the 13th hole, well, and made a par four. His play there helped him maintain his hopeful outlook:

> Again, another putt I thought I had a good chance at making, but I left it just a little short. So it was another good try, and another possible birdie that I let go. But at least I had, again I'm getting two good strokes at it, two good swings. And I feel my swing is slowly starting to come back, and maybe I can finish strong. Get back into the game.

The informant played the 14th well, and made par. His thoughts turned to the next holes:

> "I've got four holes left, I'm five over par. But I'm even par on the back so far. And I figure if I get by 15, 15 and 16 really, which are two good pars, 17 and 18 are two birdie holes.
>
> Fifteen proved to be a bit of a turning point.
>
> So I ended up with a double bogey, and that's why, as I said earlier on I'm trying to stay away from double bogeys. And that one hurt me a bit more. Now I know I'm out of the tournament. I'm not only out of a decent round, I'm out of the tournament as well. A 75 you can come back, because we're all amateurs. But that put me seven over, and seven over is tough to come back from.

Indeed, the informant was making coming back an even greater challenge, as he

bogeyed the next hole as well. Nevertheless, he persisted with a positive attitude:

> Well, I figure if I can birdie both of them, that'll get me to 78, and 78 is 6 over, and again, two rounds under par will get me close to par for the tournament. Close to par, you never know. We're all amateurs out there. With 66, a guy shoots 75, 75, which are two acceptable rounds, and he's back to even par.

On the 17th hole the informant's optimism was finally rewarded, and he made his first birdie of the day, "so I got the one birdie hole that I was looking for and the 18th is another one." He didn't get the sought after birdie, but was still satisfied about the way he finished:

> So, I made par on the hole. But again, when you play the hole the way it's supposed to be played, the thoughts are not, there's nothing much going through your head... So I birdied 17. Made two good shots on 18, and a good little pitch at it. So, I feel good for tomorrow.

The round was completed in a score of 79, seven over par. Subsequent to making a double bogey on 15, something that he aims diligently to avoid every time he plays, the informant was asked if it took the wind out of his sails. His reply illustrates how he put the round into perspective:

> No, because I know I can still shoot a decent score, and there's some more things in this tournament... But the top 32 get invited to the Meagher's Invitational, and the top forty make all the tournaments for next year, so there's still other things to shoot for. Which is what I thought of when I got the 79, and after the round, to come back, and even if I can be a couple under par for each of the next two rounds. I've been playing well lately, so this is just one bad round in the middle of things. I hope. But that was my process after the round, I can still get two decent rounds in, finish a couple over for the tournament, which will not be all that bad. And qualify me for everything else for next year, and see what happens.

This ability to reframe what occurs into an optimistic outlook or positive summation is one of the informant's terrific strengths. The following illustrate well this power that he possesses:

> Whatever shot you're trying to pull off, always look at the positive of it. Okay, like I had the right club, I had the right distance, I thought of it properly, I just didn't pull it off properly. The thought process, everything leading up to the shot was okay, so try and repeat it.

Another example,

> As I said, I've always had or I try to keep a positive swing thought. So when I do get into a bad position, I never think of the bad thing of it. I think of the good shots I've hit from those kinds of positions before.

The informant is well aware of his mental strength, and describes it well here:

> But I've always felt the strong part of my game has always been my mental attitude. Because I don't get upset with anything, I don't get carried away with a couple of birdies. I just know the bogeys are gonna come eventually. Hopefully they won't. They'll come if I'm three under after five holes, or six holes. I'm in the same frame of mind anyways. I've always had the same demeanor on the course, the same rhythm, I don't speed up if I'm playing well, or if I'm playing bad... I've always tried to keep exactly the same attitude, the same pace no matter where I hit it. The next shot is the important one. I've always felt that's been my strong suit.
>
> This strong mental attitude has worked consistently well for the informant.

Although this day's results were quite unusual for him, he demonstrated his ability to remain persistent throughout. This is a perspective that most golfers are weak in and can benefit tremendously from.

Golfer 6

> The participant came very close to starting off the round with a birdie:
>
> S: I was kind of disappointed because I wanted to get off to the birdie start, you know, just to start things going, 'cause I knew that that's what I had to do today. I was a bit disappointed. Especially since it came so close, you know. It was like a cellophane bridge.
>
> He didn't have to wait long for the action to start. He birdied the second hole:
>
> I: So, you've made your first birdie. Do you say anything like, "All right, now you're on track", or...

S: No. I didn't say anything I don't think. I was thinking, "All right, I've gotta make five more to get in it."
I: So you definitely had picked a number for today.
S: Yeah. It was, well, it was 67 or 66.
I: Was that because you figured the leaders yesterday might be shooting just around par today?
S: Yeah, that's what I figured exactly. I figured they'd both shoot par today, and if I can shoot what they shot the day before, I'll be right in there. Of course, if I set my goal that high and then don't quite reach it, I'm still doing all right.

The third hole, a par 4, was played in regulation strokes. Following that, the participant made his next birdie, on the par 5 fourth, a really good birdie in his words.

On the fifth hole, a tough par 4, the participant ran into a little trouble, flying the green into a hazard on his second shot. He made a good bogey from there, and his up and down was a bit of a lift despite the score he finished with on that hole. His remark about the second shot was simply "Everyone hits bad shots, and that was one of them."

Coming right back with birdie on the next hole, the par 5 sixth, it was clear the previous hole hadn't bothered him.

S: I'm pretty happy right here. I'm thinking, okay, now I'm on the way. I've played the first six holes, which are, you know, not tough but you have to get by them. And I'm two under, and here's seven. You never know, I could make a birdie.

A par three was made at the next hole, without much commentary other than the hole was well played.

At the eighth hole, the participant made his second bogey of the day, due in his estimation to careless putting. Yet, he was still able to file it away quickly and turn his attention to the next shot, his drive on the par 3 ninth hole. He parred the hole and made the turn at one under par.

S: One under and I'm pretty happy with that. I'm thinking, okay, I can birdie a few on the back and get in it...

I: When you've played nine, you know how you're standing, do you set a number in mind for the back nine, like I want to try to be three under on the back, or...
S: No. It depends. Sometimes when... Sometimes if I'm three under on the front, I start thinking "you're even on the back and this is a new game." You know, just so I don't get too excited about being under par. I've got to learn to shoot really low numbers, if I'm gonna go where I want to go.

The participant's play at the 10th hole, a par 5, was rewarded with another birdie. He was really pleased with how he hit the ball on that hole.

Another par at the 11th was accomplished, despite the poor conditions of the green, a consistent weakness of the course this week.

A par at the par three 12th hole was a little disappointing, only because the participant hit a sand wedge off the tee and didn't put it as close as he should have for a good birdie possibility. He made a good up and down at the next hole, a par 4, for par.

On his putt on the par four 14th, the participant was convinced it was in the hole, but it dove off line at the very end. A slight slap of the putter with his hand was his reaction.

I: That hurt.
S: That did hurt. Not the slapping of the putter either. It was right in the middle.
I: So how frustrated are you with these greens by this point?
S: Well, I'm frustrated more with myself.
I: With yourself?
S: I'm thinking, come on (self) something good has to happen sooner or later. You're two under, if something good happens now you'll be right in it. But uh, these next two holes weren't good.

The first of these next two holes was the par four 15th, which the participant bogeyed, badly as he said. He then also bogeyed the next hole, a par three, after which he wants to give the putter a little flex until he remembers it doesn't belong to him and he'd better not damage it. The visible frustration these last two holes was partly attributed to

the poor condition of the greens. Still, the participant looks toward the possibilities that remain on the last couple of holes.

He took advantage of the first opportunity by making birdie at the par four 17th hole. He figured a putt was due to drop because of all the ones that had come so close but had stayed out of the hole. Unfortunately, his birdie putt at the last hole, a par 4, was one of those disheartening ones, "and it was in the hole for a while, but then it spun out... Again, a little frustrating.".

The participant's reflections about the round, and the tournament so far were that he had fallen short of his objectives; "These two rounds have both been frustrating. I just haven't been able to get it going, you know? I mean, I'm not playing that badly, I'm even par, but, just, it's not as good as I want."

There are several things that contribute to the good play of this participant. There's no doubt he has an abundance of talent. Recently he has also learned more about controlling his game. Some things pertain to mechanics, but he's also learned about applying some things that make him more strong mentally. Of particular note is adhering to a consistent preshot routine, even on putts. On the long shots, this includes visualizing quite distinctly the shot he wants to hit, trying not to pull the trigger until that image is clear. As well, he is quite confident with his putting, and feels he can make any putt that he stands over. His swing thoughts may vary, but he makes a point of simplifying by maintaining only one at a time. He also knows to evaluate his rounds, reviewing them for things done well and poorly, the former to enforce a sense of confidence, and the latter to

try to avoid similar mistakes in the future. Youth, ability, and mental strength will definitely lead this participant towards his goals.

Golfer 7

The participant made a really good par at the first hole. While discussing it in the interview, this exchange took place:

> I: So, a decent recovery?
> S: It was a real good recovery.
> I: So, were you saying, good recovery, or what were you saying to yourself...anything after that?
> S: I have more tendency to say bad tee shot, than a good recovery.

On the second hole, the participant picked up after a few consecutive bad shots - his partner was already in good shape on the green. The participant said that on the next tee he'd settled down but deep inside he was still not at peace with himself. He was still angry with the way he was swinging, and with all the bad shots he'd hit. Nevertheless, he did manage to par the next hole. When asked his opinion about the hole overall, he replied, "still a lousy tee shot". That par on the third hole helped his disposition slightly, and he told himself to start helping the team, start feeling useful.

He parred the next hole, the par 3 fourth. However, he had made a very poor stroke on the first putt, thereby missing an easy birdie.

> S: It's not that at this point we're two under after four holes, we're comfortable...There are a lot more birdies to come. But I'm thinking to myself, that in a match play situation, I've just given a hole, and you can't afford to do that. That's why I was mostly mad. Cause that's the situation I was putting myself in... That's why I was mad at myself. I made a bad stroke, I made a bad stroke...but I mean it's just the fact that I wasn't confident on the putt, and I've just given a stroke away to the field again.

On the par 5 fifth hole, the participant made bogey by missing a short putt. The anger continued: "...still pissed off because I'm not playing well... I'm not helping the team, shall I say." He had missed a couple of short putts to this point but was still confident that he could overcome it since he had been putting well lately.

The participant admitted that the built up stress was starting to affect his ability to make a normal swing; instead, he was actually jumping on the ball. He made another bogey, this at the par 4 sixth:

> S: Still pissed off because it's a bogey. And it's a stupid bogey, the fairway's about 29 miles wide... Still made an up and down, but it was a lousy drive, lousy second shot, lousy blast; I made one good putt.
> I: So, does that one good putt bring you back up a little?
> S: Not at this point with all the bad swings I've made.

The string of bogeys continued at the par 4 seventh hole.

> I: So, in fact after all these bad holes, you do start to come around.
> S: I normally do. Like me, I normally will come around after two holes, three holes. Now I'm at seven holes, and I'm starting to worry about, nice of you to show up today, what's going on, you know?
> I: So, how did you, how do you get back on track?
> S: I just told myself to slow down and focus on what I have to do, instead of focusing on how well my (partner's) playing, on what's going on today...

The participant got his swing back on the par 3 eighth hole by cueing himself about tempo, and taking it back slow. Because his partner was six inches from the hole the participant didn't need to play out. But he was relieved at being back in the game: "I made a good swing, so my morale, I see a little bit of light at the end of the tunnel."

Finally on the ninth hole, the participant put it all together and made a birdie three. He had managed to repeat the cues about tempo and slowing it down, and was rewarded

for this better mindset. He was more relaxed after nine since he felt he'd got his swing back and since several good opportunity holes awaited them.

Hole number 10 was a birdie hole; unfortunately the participant made a couple of weak decisions on this hole and settled for a par, with which he was disappointed. He came back with a very solid par on the 11th hole.

The 12th hole was another birdie hole, and the participant successfully negotiated this par 5 in four strokes: "Birdie's good. We're back to four under." He became visibly more happy and relaxed.

The next hole was a tough par 3, which the participant played very solidly for par. His first reaction was that it would have been nice to make birdie, but he eventually admitted that the birdie putt was very difficult, and par was a good score there.

Over the years the participant has developed a deep hatred for the next hole, the par four 14th. Although he played it very badly this day, he almost made par, but had to settle for bogey. This reinforced the deep-rooted dislike he has for this hole.

The next hole was a par 3. The tournament organizers decided this should be an automatic par for all competitors since the green was in such poor condition.

The participant made a routine par at the 16th hole, a par 4, after which he had little commentary to offer. The next hole was another good par 3, one that the participant was determined not to bogey from where his tee shot had put him. The par save made him happy.

The final hole was a par 5, another birdie opportunity. The participant was actually putting for eagle initially; thus, making a three-putt par was really disappointing. Still, he felt the team had a good chance to qualify with the day's score.

The participant felt that this day was atypical, that he usually hits the ball a lot better than what he brought to the course today. "I didn't drive well at all. I hit some good irons, and I putted okay... Not good, not a good round."

The participant knows that he has a very good swing, and has scored well enough times to know that the potential is there. He maintains his confidence about his putting stroke, which is a major factor in playing well. However, through the course of the interview, several points were highlighted that he knows he'll need to work on to strengthen his mental game. He is such a perfectionist with every shot, which puts a tremendous amount of pressure on him. Rather than acknowledge the things that go well on a hole, his attention is centered on the weak aspects, and this encourages the stress and tension to begin, or continue. The lack of a set, consistent preshot routine is something that exacerbates a troublesome mindset while preparing for a shot. As well, the content of many of his thoughts is much too mechanical, instead of trusting all the hours he's spent practicing technique over the years.

It remains however that his passion for the game is one of his strongest suits, and his desire to work on his mental game is commendable. This willingness to take responsibility for how he thinks on the course will likely lead to much improved play, and more enjoyable rounds.