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Inside the Red Zone: An Existential Phenomenological Look at the Experience of Anger in Competitive Tennis Players

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INSIDE THE RED ZONE:

AN EXISTENTIAL PHENOMENOLOGICAL LOOK AT THE EXPERIENCE OF ANGER IN COMPETITIVE TENNIS PLAYERS

BY

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To the Dean of the School of Human Performance and Leisure Sciences:

I am submitting herewith a thesis written by *Hilary Cornelius* entitled " Inside the Red Zone, An Existential Phenomenological look at the experience of anger in competitive tennis players." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science with a major in Movement Science.

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<*insert name*>, Thesis Committee Chair

We, members of the thesis committee,
have examined this thesis
and recommend its acceptance:

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Abstract

Despite the vast research that is available about emotions and their effects on sport performance, little is known about the experience of anger during tennis competition. The overall theories about emotion and sport performance look to examine the predictability of behavior during competition however do not give voice to the first person perspective of anger during competition. The purpose of this study was to examine competitive tennis players' experiences of anger during competition. Qualitative research about emotional experiences during sport competition is limited. This study attempted to address this gap in the research by analyzing ten different interviews from a qualitative existential phenomenological perspective. The ten participants in this study ranged from age 18 to 43 years. All participants in this study had competed in tennis at either a Division I college level or a professional level. During the interviews, each participant was asked, "When you think about your experience with anger in tennis during competition, what stands out for you?" Those interviews were recorded and transcribed verbatim.

Qualitative analysis of the interviews revealed 287 meaning units from the ten interviews, which were grouped in sub-themes and general themes. The final thematic structure revealed a major ground of maturity to which all themes emerged from. From that ground two dimensions emerged including: *Elements of Anger,* and *Management of Anger.* Those dimensions contained four themes within *Elements of anger*, and six themes within *Management of anger*.

The results of this study found the theoretical ground, *Maturity* to be central to each participant's experience as many struggled when dealing with anger at a young

age, but gradually learned how to cope with it through experience. The current research has found some new findings based on these interviews that previous research has not addressed. The results from this study offer practical implications for those who support competitive tennis players such as, coaches, sport psychology professionals, and parents who hope to improve and gain understanding into this emotional experience to help those who struggle in dealing with anger in tennis.

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CHAPTER I: Introduction

To quote the famous former professional tennis player John McEnroe: “You cannot be serious!” When most people think about John McEnroe they remember his anger on the tennis court and his arguments with officials and even suspensions and fines for his inability to control his temper on the tennis court. In more recent years attention has been drawn to anger in tennis once again due to an incident at the 2009 U.S. Open where Serena Williams, the number two seed, threatened a line judge who made a call against her. In her outburst Serena threatened the line judge by saying, “I am going to shove this (expletive) tennis ball down your throat!” She was then fined and temporarily suspended from the WTA tour. Anger is experienced by all athletes as sports are very emotional, but at what point is anger helpful or harmful to tennis performance? This study addressed the issue of anger in tennis by examining the experience of anger during competition through the first person perspective of the player.

Anger is a multidimensional emotion that can be defined based upon feelings of frustration, cognitive appraisal (Bolgar, 2008) and physiological responses (Moons & Mackie, 2007) that occur in response to a situational stimulus where feelings and thoughts oppose a threat to the self (Lazarus, 2000). Anger in sports plays a much different role than it does in our everyday interactions. According to Cox (2007), anger is commonly considered a negative emotion, however anger does not necessarily have a negative effect on performance. Abrams (2010) suggested that, in sport, "anger is neither good nor bad, and no judgment need be attached to it" (p. 3).

The terms anger and aggression are often used interchangeably, but are not synonymous. Aggression is a behavioral attribute whereas anger is the experience of an emotion that is unique to each individual (Abrams, 2010). Much of the research in sport has focused on aggression and involved contact sports, such as Ice Hockey and American Football. Contact sports provide opportunities to become physically aggressive toward another person due to the nature of those sports. Non-contact sports are susceptible to negative consequences of anger because the nature of non-contact sports does not allow someone to physically take out their anger on someone else, thus requiring different coping strategies or outlets for that anger, such as verbal aggression. In any sport, athletes are expected to demonstrate sportsmanship, composure, and emotional regulation during competition. The experience of anger and its impact on performance may differ greatly in non-contact sports compared to contact sports. For example, in tennis, a set of rules outlines penalties that may be given to an athlete who is unable to effectively manage his/her emotions and exhibits an angry behavioral outburst (USTA, 2010). These penalties include warnings, point penalties, game penalties, and ejection from the match. Therefore, the examination of the experience of anger in competitive tennis may provide new insights in order to apply appropriate intervention strategies for sport psychology consultants and their clients.

People experience emotions in very different ways making it difficult to define and understand them (Tenenbaum & Eklund, 2007). Jones (2003) concluded that all emotions contain three elements. All emotions are: (a) associated with physiological change, (b) based upon subjective experiences, and (c) expressed

through action tendencies. He also found that anger is associated with high levels of physiological arousal. As anger increases, cognitive processing speed, fine motor coordination, and sensitivity to pain decrease. At the same time, heart rate, cardiovascular output, and muscular strength increase. As Abrams (2010) explains, for some athletes, tasks, and sports, this physiological response to anger can be facilitative to performance; for others, it will likely interfere with performance.

As mentioned by Jones (2003), emotions are based on subjective experiences. Appraisal of an experience combines the athlete's subjective view, based on previous experience and confidence in his/her ability to cope with emotional experiences during competition. The emotional experiences are subjective in that they are unique to the individual. Some theorists argue that emotional responses do not require cognitive processing (Jones, 2003). Richard Lazarus' cognitive motivational relational theory (CMRT) shows that a cognitive process is required during emotional processing as the stimulus must be perceived (i.e., appraised) in a way unique to the individual in order for an emotion to occur. This does not account for someone being unaware as to why they react to a stimulus emotionally, as that may be linked to appraisal that occurs subconsciously (Jones, 2003). CMRT in sport applies as a way of identifying what is important to the individual athlete. According to CMRT, the underlying core relational theme for anger is "a demeaning offense against me and mine" (Lazarus, 2000, p.242). Essentially, a threat to the ego is what drives anger to be felt, and sometimes acted upon. For example, in tennis this might involve someone being cheated by his or her opponent by calling a ball out that was in. As a tennis player, you work very hard for every point, and the opponent cheating you takes away

from or devalues the effort of hard work put into a point that deserves a fair chance. Not having a fair chance can become personal and a threat to the individual themselves as it places a barrier between their current situation and the goal of ultimately striving to win each point. Anger, however, is experienced in many different ways. Depending on the type of skills required for a task, personality characteristics of individual athletes, and level of expertise, athletes will exhibit varied emotional reactions in competition settings (Jones, 2003). Therefore, subjectivity must be addressed in research about emotional experiences in order to understand the meaning behind the experience of anger in competitive tennis matches.

Action tendencies, or behaviors, are displayed on the tennis court during competition. These behaviors, with regards to the experience of anger in competitive tennis, can be verbal (e.g., yelling) or non-verbal (e.g., physically throwing a racket). As mentioned previously, penalties may be given in tennis for those outbursts by a tournament referee or umpire. In order to understand how to effectively prevent and cope with angry outbursts, one must understand the foundational theories that underlie the emotional processing of anger (Hanin, 2000).

In an effort to account for individual differences and understand emotions and performance, Yuri Hanin (2000) developed the Individual Zone of Optimal Functioning theory as a way of predicting behavior and determining optimal emotional functioning in order to perform at optimal levels. In order to better understand emotions, we need to understand the dynamics of the emotional experience, and ideally examine the context in which the behavior, performance, or emotion occurred. This is also known as situational anger. We must also identify the

experience before, during and after performance. Similar to the IZOF, this study looks at individual difference however, by means of phenomenological interviews, and attempts to find common patterns among the interviews that best describe the many dimensions of anger during competition. Verbatim interview transcripts and quotes help to describe the many dimensions of those experiences.

Previous research conducted by Hanin (2000) used self-reporting scales to measure and understand anger and emotions. While, these scales are helpful in categorizing types of anger, they are unable to capture the emotional experience that the athlete internalizes and carries with them throughout competition. Thus, quantitative methods are inadequate when studying a human emotional phenomenon (i.e., anger) because the scientific view can be too restrictive when explaining subjective experiences (Dale, 1996). Through a qualitative approach with phenomenological interviews, the current research project attempted to capture the multidimensionality of the emotional experience of anger during competitive tennis matches. This is relevant for the field of sport psychology because it is important to be able to determine if the anger reaction is helpful or harmful cognitively, emotionally, and physiologically to an athlete in relation to performance. Understanding the experience of anger from the athlete's perspective is a crucial prerequisite for applying psychological interventions.

Statement of the Problem

Previous research has examined the emotion of anger through quantitative measures and has found possible links between anger and performance, however, still missing from this research are the individual experiences of a first-person account

about the experience of anger during competition. In order for research to be useful, it needs to be applicable. In the field of Sport Psychology, theories and research must be able to be applied to those who are practicing. Interviewing currently competitive tennis players for this study addresses the applied aspects of the previously mentioned theories. Reading and listening to the voices of the actual athletes provides insight that bridges the gap between research and application. It is the hope of the researcher that by allowing these athletes to voice their personal experiences, this can lead to possible interventions that can benefit competitive tennis players in the future who may struggle with similar experiences.

Purpose of the Study

The purpose of this study is to examine competitive tennis players' experiences of anger during competition. Qualitative research about emotional experiences during sport competition is limited. This study involved the use of in-depth phenomenological interviews to examine and understand athletes' individual, subjective experiences of anger during competitive tennis matches. Anger is a normal emotion that all athletes experience at some point during competition. The lack of research about the experience of anger limits our understanding about it is experienced. Examination of the anger experience will provide information that may lead to proper applications of interventions that are helpful in order to facilitate optimal performance in athletes, and in this study, specifically competitive tennis players.

Significance of the Study

The ultimate goal of a sport psychology consultant is to facilitate successful performance in an athlete's sport. In order to effectively aid an athlete in improving performance, the sport psychology consultant needs to understand the individual athlete's cognitive and emotional experiences during the performance (i.e., on the court in tennis). The current study will provide insight for consultants and tennis athletes regarding how the emotion of anger may be experienced during competition, which may help them more effectively understand and regulate the experience of anger during competition.

Limitations

The results will be limited to describe the experience of anger in competitive tennis. Also, given that the study is a qualitative examination, the results may not be indicative of competitive tennis players' experiences of anger in general. Another limitation is that participants' responses will be affected by the fact that emotional experiences are thought to be subjective and the definition of anger is dependent upon how the individual uniquely defines anger. A final limitation is that participants may not be completely honest and/or accurate when recalling experiences that occur on the court. This could be dependent upon such factors as the timing of the interview, his or her comfort and ability to articulate anger, and previous experiences in coping with intense emotions like anger.

Delimitations

The participants in this study are delimited to currently ranked competitive tennis players. The rankings must be at a minimum of a USTA, ITA, ATP, or WTA

level ranking. Also, because phenomenological research depends upon the spoken word, these interviews will be conducted in English, where all participants are also English speaking. Finally, the recruitment of participants will take place at adult competitive regional, national and international tennis tournaments throughout the United States.

Assumptions

For the purpose of this study, the researcher is assuming that participants have the ability to reflect and articulate honest, accurate, and open accounts of their experiences of anger during competitive matches.

Definition of Terms

Anger: Anger is a multidimensional emotion that can be defined based upon feelings of frustration, cognitive appraisal (Bolgar, 2008) and physiological responses (Moons & Mackie, 2007) that occur in response to a situational stimulus where feelings and thoughts oppose a threat to the self (Lazarus, 2000).

Aggression: Defined in two parts: Instrumental aggression and Reactive (Hostile) aggression. Instrumental: Goal-directed aggression where harm to another is not the primary goal but is a secondary result of action. Reactive Aggression: Behavior, as its goal, is to do harm to someone typically in response to a perceived injustice, insult or wrong doing (Abrams, 2010).

Competitive tennis player: A tennis athlete who is currently ranked or has been ranked based on ATP, WTA, ITA, or USTA records at a regional, national, or international level and competing in tournaments to determine that ranking.

Emotion: A sensory experience that is based upon subjective feelings, is expressed through action tendencies (behaviors), and is associated with physiological change (Jones, 2000).

Existential paradigm: Abandon the belief that there is only one way of knowing (Dale, 1996). When studying a human emotional phenomenon (i.e., anger) the traditional scientific view can be restrictive. Existential phenomenology lends itself well to researching an experience because the process allows the researcher to be able to accurately describe and understand the experiences of those being interviewed.

Frustration: A feeling associated with anger. For the purpose of this study, frustration falls within an anger continuum of intensity. Frustration not being the same as anger but of a lesser intensity than anger or rage.

Phenomenology: The study of a specific phenomenon that "focuses on the descriptions and meanings that a person provides in relation to an experience or situation" (Nesti, 2004, p.21).

Psychobiosocial: a combination of biological and genetic factors, social factors (i.e., interactions with others), and psychological factors (i.e., individual personality and temperament) (Hanin, 2000).

Qualitative research: Research method that involves intensive, long-time observation in a natural setting: precise detailed recording of what happens in the setting; interpretation and analysis of data using descriptions, narratives, charts, quotes and tables (Thomas, Nelson, & Silverman, 2005).

Quantitative research: An objective manner of study grounded in the natural sciences that are systemic, logical, empirical, reductive, and replicable (Thomas, Nelson, & Silverman, 2005).

Verbal Aggression: The act of using aggressive language directed toward a target (Hamilton, 2012).

Chapter II: Review of Literature

Overview

Currently the qualitative research about the experience of anger during competitive tennis matches is non-existent. In order to provide the context for this existential phenomenological study, a review of existing literature related to anger and emotional experience is provided in this chapter. The first section presents definitions and descriptions of emotions including descriptive experiences, emotional processing models, and consequences of emotions. The second part addresses previous literature that defines and describes anger experiences, anger types, anger responses, and the anger-performance relationship. The third section provides information about qualitative research, specifically existential phenomenology. And the fourth section provides a description of the game of tennis, and the lifestyles and scheduling demands of competitive tennis players.

Emotions

Defining and describing emotions.

In order to define emotion, basic dimensions surrounding the emotional experience need to be identified. Therefore, when defining emotions: “we might start not with the aim of explaining emotions but rather with describing a system that has as its product some of the observations that have been called ‘emotion’ in common language” (Mandler, 1975, p.4). Parkinson (1994) suggested several ways to capture the dimensions of emotions that can lead to a possible definition. These include: (a) giving examples of items belonging to the category of emotion, (b) looking at the different aspects and components of emotional experience, (c) considering how

various aspects combine with one another and how they interact to make an emotion episode what it is, and (d) by relating and contrasting it with other psychological functions (Tenenbaum, & Eklund, 2007).

Emotion, as an interaction, is defined as an organized psychobiosocial reaction to Person-Environment (P-E) relationships (Hanin, 2000). Hanin describes the P-E relationship as a person's reactions and coping skills to external stimuli. One essential component of the P-E relationship that affects emotional experience is resource matching. Resource matching is a comparison of demands placed on an individual in a given situation and the personal resources an individual perceives he/she has to attempt to meet those demands. When there is an imbalance in which the individual perceives that the demands of the environment or task exceed the individual's resources, the individual experiences a negative reaction to the stressor (i.e., distress). The response to this stress is manifested through behaviors. The effects of an emotional experience can be facilitative, neutral, or act as a barrier when trying to accomplish a goal (Tenenbaum & Eklund, 2007).

Emotion is not just a reaction, but also an experience. Examining the experience of an emotion provides information about the interpretation of the meaning of the environment for the individual and is an important dimension to understand when studying P-E relationships because it reflects a person's attitude toward the different aspects of the environment (Tenenbaum & Eklund, 2007). In sport, individuals are faced with many environmental stressors that require coping strategies. Understanding how emotions are experienced will give insight into how they are related to behaviors and impact performance. Ultimately, this can help sport

psychology consultants and their clients determine appropriate intervention strategies for regulating emotions during performance.

Cognitive motivational relational theory.

As a way of defining emotions, Richard Lazarus (2000) developed the Cognitive Motivational Relational Theory (CMRT). Lazarus describes CMRT as having two components: appraisal and motivation. Some theorists argue that emotional responses do not require cognitive processing. Lazarus' CMRT shows that a cognitive process is required during emotional processing as the stimulus must be perceived (appraised) in a way unique to the individual in order for an emotion to occur. This does not account for someone being unaware as to why they react to a stimulus emotionally, as that may be linked to appraisal that occurs subconsciously. Motivation behind an anger reaction, according to Lazarus (2000), is a reaction to a threat to the self, or ego, of the individual, which drives a behavioral response (Jones, 2003).

Lazarus (2000) identified six components of the cognitive appraisal process: (a) goal relevance within the person/environment; (b) the situation is congruent or incongruent with one's goals; (c) type of ego involvement; (d) blame, accountability, or credit; (e) coping potential determined by what can be done about the situation and; (f) future expectancies or consequences of one's actions (rules). These components need to be identified when attempting to discover what thoughts occur (cognitions) and how that may affect an athlete's performance. Although CMRT was not designed for sport specifically, the same process appears within most sport contexts (Bolgar, Janelle, & Giacobbi, 2008). CMRT in sport applies as a way of

identifying what is important to the individual athlete through both cognition and behavior. Figure 1 describes the initial emotional experience according to CMRT. The figure describes the immediate appraisal or judgment about the emotion experienced, which leads to an appraisal about (thoughts/cognitions) that drive the motivation and final decision about the individual's unique response to the initial emotion. This response is typically shown through behavior. A situational example of this in tennis may look like: a) A tennis player misses an easy shot they would normally make, triggering an initial feeling as a reaction to the missed shot. b) Their mind quickly labels the emotion, in this case frustration. c) During this step they start to form an opinion about this situation, i.e. negative thought about missing. d) An emotional, typically behavioral response occurs, i.e. throwing the racket or yelling.

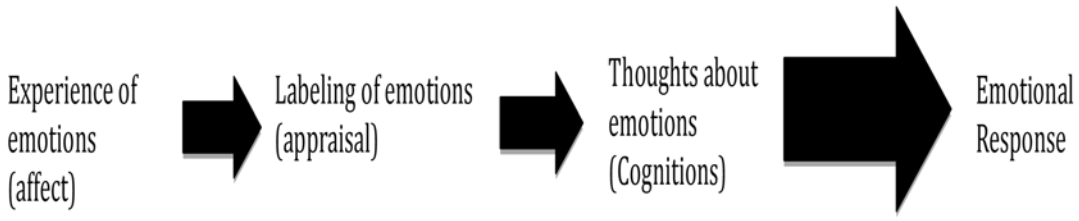


Figure 1. Model adapted from Cognitive Motivational Relational Theory (Lazarus, 2000).

Emotion-Performance relationship.

Emotions can have facilitating, debilitating, or neutral effects on performance. The direction of emotional impact can be determined by situational performance, psychobiosocial state (cognitive, motivational, bodily, behavioral or communicative components), or relationships. Consequences of emotions are both self-directed (internalized) and other-directed (externalized) (Hanin, 2000). Specific to tennis self-

directed consequences, for example, would look like an athlete getting angry with himself for making a mistake whereas other-directed consequences would be getting angry at the opponent for making a bad call. Therefore, emotion consequences can include interpersonal, intrapersonal, and intragroup consequences. These emotional experiences can have significant impacts on athletic performance and relations with others (teammates/coaches/opponents/self). Therefore, as Jones (2007) discusses, the effect of emotions on performance is dependent upon all the dimensions involved in the experience of emotions as well as the unique set of perceptions and experiences of the particular athlete.

Several theories have been proposed to explain the impact of emotion/arousal on performance. The Yerkes-Dodson Law (1908) or inverted-U hypothesis suggests that an athlete's optimal arousal and performance in sport occurs when arousal is neither too high nor too low as shown in figure 2.

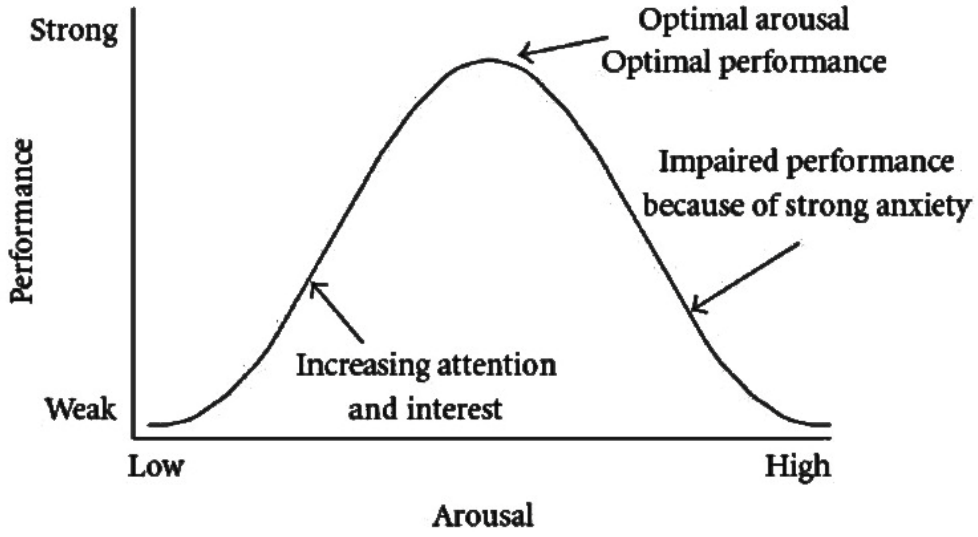


Figure 2. The inverted U hypothesis for optimal performance

Hanin's (2000) individual zone of optimal functioning (IZOF) theory extends this hypothesis by indicating that personal and situational factors will impact where this zone of optimal arousal and performance will occur along the arousal continuum. In an effort to describe the multidimensionality of emotions and performance, the IZOF takes individual difference into account by having athletes determine which types of positive and negative affect he or she experiences when performing poorly or at optimum levels. The IZOF model then uses those patterns to predict each athlete's future performance by determining where their individual zone of optimal functioning lies (Hanin, 1999). The IZOF serves as a structural framework of quantitative and qualitative analysis of the function of emotional experiences and how they relate to performance. The word "Individual" represents the individual dynamics of the subjective experiences that determine successful or unsuccessful performances. Zone refers to the athlete's emotional intensity in which they experience the most success. Optimal emotions are those emotions that occur internally during optimal performance, resulting in total involvement in the task with the best possible use of resources. Functioning refers to the structure of the content of emotion during the performance. One assumption of the IZOF model suggests that sport activity and emotional related experiences are repetitive, therefore performance and emotion patterns can develop over time (Hanin, 1999).

Another theory that attempts to predict the performance of athletes based on arousal levels is Catastrophe Theory. Catastrophe theory challenges the idea that small increases in arousal result in small changes in performance. This theory

proposes the opposite of what the smooth shaped inverted-U curve describes. That is, when athletes are faced with unmanageable amounts of stress, or anxiety, and arousal, they do not experience a small decrease in performance, but rather a large and dramatic decrease in performance that is catastrophic in nature. Further, once the athlete experiences this dramatic decrease in performance, small incremental reductions in performance do not typically bring back the optimal performance level (Cox, 2007).

A study performed by Woodman, Davis, Hardy, Callow, Glasscock, and Yuill-Proctor (2009), explored happiness, hope, and anger in regard to sport performance. This study shows the relationship between emotion and performance based on three different experiments. Two dimensions of anger were measured: State Anger, and Trait Anger. Trait anger was defined as a personality disposition of an individual to experience anger. Individuals higher in trait anger may be prone to experience elevated states of anger more frequently across situations. State anger was defined as a reaction to individual situations that can cause an angry emotional response. Additionally, the researchers aimed to define two terms (i.e., anger in and anger out) that identify individuals' ability to regulate the directional focus of their anger. Anger out refers to "the predisposition to convey one's anger outward (toward an external target) and corresponds with the release of anger's action tendency" (p.458). Anger in refers to "the predisposition to direct one's anger inward (bottle it up) and has been associated with attempts to suppress anger's action tendency" (p. 458).

Their first experiment evaluated fifteen physically active participants. The participants were read an imagery script meant to induce anger, and happiness. They were then asked to complete a Visual Analog Scale (VAS) to assess the degree to which the participants experienced the induced emotions. Following the VAS, they were asked to perform a grammatical reasoning cognitive task. After the cognitive task, they completed a physical task that measured the gross muscular force of a kicking motion. This experiment found that the peak force of the physical task was significantly greater in the anger condition when compared to the happiness and emotion neutral conditions. This is found to be consistent with Richard Lazarus' theory that anger can facilitate physical performance if the required skill is similar to a "lashing out" action tendency (Woodman et.al, 2009).

The second experiment consisted of 18 semi-professional soccer players who were asked to complete soccer related tasks. Imagery again was used to induce anger and hope and was measured using the Sport Affect Grid (SAG) to determine pleasant and unpleasant feelings. The Perceived Mental Effort Scale (PMES) was used to determine the degrees of hope. For the cognitive task, the soccer players were asked to track the path of opposing players on a computer screen. This experiment found that, although a significant increase in effort was perceived in the anger condition, performance was not significantly improved when compared with hope and emotion neutral groups. Anger in the cognitive task did not show a significant increase in performance. This experiment supports Lazarus' CMRT once again that the task's action tendency must be closely related to the emotion.

The third and final experiment of this study examined 72 physically active undergraduate students. Again, imagery scripts were used to induce anger. This time researchers used the State-Trait Anger Scale (STAS) to measure specific personality traits involved with anger. They also used the VAS again to assess the degree of emotional experience. The Extroversion International Personality Item Pool (IPIP) was used to assess levels of extroversion. The physical performance task from experiment one was also used in this experiment. Results were similar to the first experiment where anger increased kicking task performance results, but the researchers also found that extroverts' performance gains were greater than the introverts. This experiment provides an additional dimension to the emotion performance relationship as it indicates that personality types also can play a role in the emotion-performance relationship.

Understanding how emotions are experienced by athletes during competition gives insight into what emotion regulation strategies will be most effective. Typically, there are three strategies that are used in the practice of sport psychology to assess the functionality of emotions during sport performance (Tenenbaum & Eklund, 2007). First, emotion-based strategies involve the collection of multiple measures of emotion intensity. Second, performance-based strategies focus on personal best and worst case scenarios and focus on the emotion(s) related to those scenarios. Third, perception-based strategies are based on the subjective perceptions of the individual experience. Sport psychology consultants must be aware of how an individual's experience of emotion impacts his/her performance, determining which intervention strategy will be most appropriate and effective and how that strategy will be best applied (Tenenbaum

& Eklund, 2007). By attempting to evaluate the experiences of anger during competitive tennis matches, the current study is consistent with the third type of emotion-based strategy.

Anger

Defining anger.

This study defines anger based upon how it relates to sport including the physical, emotional, behavioral, and cognitive dimensions. Previous research shows that anger can be defined based upon multiple dimensions. Those dimensions include: feelings of frustration, cognitive appraisal (Bolgar, 2008), physiological responses (Moons & Mackie, 2007), and response to situational stimuli where feelings and thoughts oppose a threat to the self or ego (Lazarus, 2000). This study looked at anger and defined it through the experiences of anger on the tennis court as described by participants.

It is important to distinguish aggression from anger as they are sometimes inaccurately used synonymously (Abrams, 2010). Aggression is a behavioral attribute. Aggression can be instrumental (i.e., goal-directed) where harm to another person is not a primary goal, but possibly a secondary result. Reactive aggression, or hostile aggression, is unacceptable in all sports. The intent and goal with reactive aggression is primarily causing pain and doing harm to someone. In comparison, anger is the experience of an emotion that is unique to each individual. Anger does not always lead to aggression and aggression is not always a result of anger. Though they are sometimes used interchangeably it is important to differentiate between these

two terms because in sports, athletes are consistently being told to be aggressive by coaches in order to reach optimal performance levels (Abrams, 2010).

Understanding the experience of anger.

Hanin (2000) discussed the multidimensionality of emotions. Specifically related to anger, he described anger as a dimensional human emotion with time and context central to the experience and behavioral response. With regards to the time dimension we need to be aware of the timeline of events, behavioral outbursts, and consequences of those behaviors in order to learn to cope with emotions in a way that facilitates performance. In the contextual dimension, the context is an environmental characteristic that determines the intensity of anger. The context dimension identifies the environmental factors that triggered the subjective experiences. These experiences are subjective because they rely on the recall and appraisals of performance, relationships, and interactions with others that are measured using self-reporting scales. Anger can be, and typically is, a high intensity emotion that contains a significant amount of emotional energy when compared to low energy emotions like sadness or depressive emotions. Sports require a significant amount of energy both mental and physical, therefore the intensity of an emotion can impact whether it is facilitative or debilitative for performance.

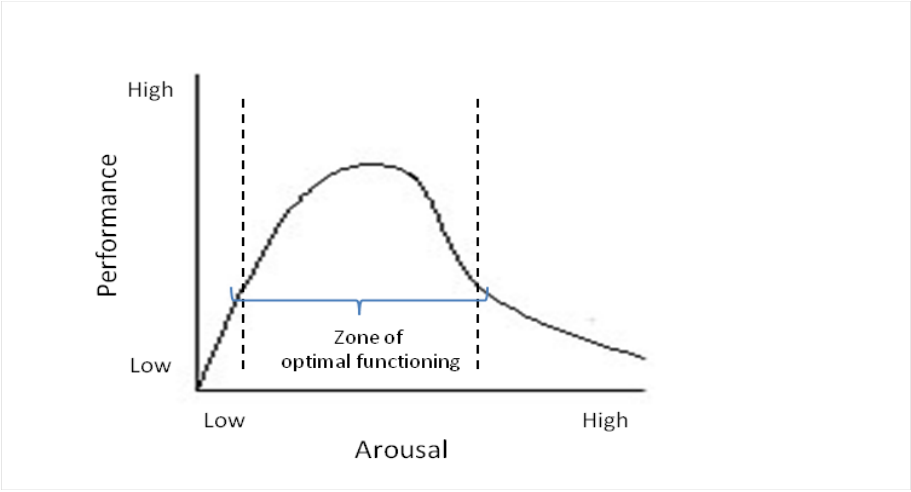
As previously mentioned, Lazarus' (2000) CMRT model identified appraisal and motivation as part of the emotional processing model. According to CMRT, the underlying core relational theme to anger is a threat to the self or ego. Therefore, athletes who appraise certain situations as harmful or threatening and find few options to cope successfully are more likely to experience an elevated state of anger.

However, the way in which anger is experienced and manifested differs depending on factors, such as environment, and perceptions unique to the individual. Not all athletes experience emotional reactions in the same way during competition.

Currently, the preferred instrument for assessing the experience and expression of anger is the State-Trait Anger Expression Inventory (STAIXI-2). The STAIX-2 has been found to identify state and trait anger in individuals and is positively correlated with predicting high levels of trait anger with the tendency to have more frequent behavioral outbursts when becoming angry (Martin & Dahlen, 2007) A study performed by Martin and Dahlen (2007) explored anger response styles and reactions to provocation. This study evaluated 205 undergraduate participants anger response styles with several questionnaires, inventories, and scales. They are: The Behavioral Anger Response Questionnaire (BARQ), the State-Trait Anger Expression Inventory-2 (STAXI-2), the Differential Emotions Scale (DES), and the Hostile Automatic Thoughts Scale (HATS). The study found that anger directed outward and anger rumination were positively related to trait anger and aggressive anger expression. Also found were results showing social support seeking, rumination, and avoidance as being positively related to anger suppression. This knowledge is helpful to sport psychology professionals as it shows that individual differences in personality can reflect how an athlete reacts to anger and expresses it. The present study can benefit from this information as it looks at the individual differences in the experience of anger and attempts to describe what that experience is like.

Impact of anger on performance.

One of the most objective, measureable means of assessing anger is the physiological response. Anger is associated with high levels of physiological arousal. As anger increases, cognitive processing speed, fine motor coordination and, sensitivity to pain decrease. At the same time, heart rate and cardiovascular output increase as well as muscular strength (Abrams, 2010). For some athletes and sports this physiological response to anger can be helpful, depending on the task. For others it can interfere with performance. A sport such as tennis requires controlled amounts of energy and arousal due to the type of skills required such as how hard or soft to hit the ball, how much energy to use and conserve, or looking for weaknesses in the opponent's game. Cognitive processing speed and arousal need to remain stable throughout a tennis match in order to maintain a consistent focus. Arousal levels that are too high may result in hitting the ball too hard and hitting it out, where as arousal levels that are too low can result in a feeling of fatigue and low energy during a match causing the athlete to not be able to move as fast as necessary to perform to the best of their ability. Specific to the relationship between anger and performance, Abrams (2010) discussed how the IZOF varies based upon the task and position of the athlete (see figure 2). He stated, "when we talk about anger management for peak performance in sport, we are not always talking about making athletes polite and calm. Rather we are referring to their ability to self-regulate their emotions to what their tasks require" (Abrams, p.3).



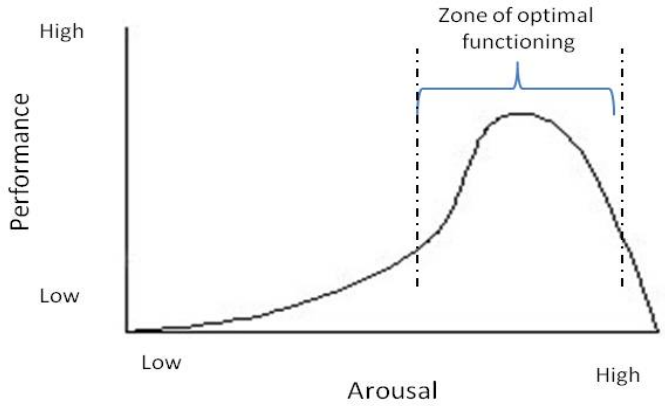


Figure 3. Example of individual zone of optimal functioning in relation to anger for a golfer making a putt (above) and football defensive lineman pass rushing (below) (Abrams, 2010).

In the past five years, the literature about anger as it relates to sports performance has grown. Mauss, Cook, Cheng, and Gross (2007) identified the impact of cognitive reappraisal and physiological responses to anger provocation. Cognitive reappraisal involves reframing thoughts about an emotional experience to decrease their emotional impact. In this study anger is defined as a negative emotion that promotes an increase is physiological cardiovascular responding, such as heart rate,

blood pressure, cardiac output, vascular contractility, and total peripheral resistance. Cognitive reappraisal is based upon a process model of emotion regulation, meaning that emotions, events and individual responses occur over time. This research presents a curious dilemma, an idea that we incur a substantial physiological cost when we attempt to emotionally regulate anger using cognitive reappraisal in addition to the physiological cost from the anger itself. Therefore, is it worth the cost to attempt to regulate anger if this effort depletes physiological resources? This is important to note in the context of sport, as physiological resources are to be preserved as long as possible to achieve peak performance. In the study 111 female participants participated in a laboratory anger provocation. Physiological sensors measured cardiovascular responding that included: Heart Rate (H) Arterial Blood Pressure (MAP), Cardiac Output (CO), Ventricular Contractility (VC), and Total Peripheral Resistance (TPR). It was found that those with high reappraisal based on an emotion inventory, experienced significantly less anger when compared to those with low reappraisal abilities. Interestingly, also found was that the emotional cost of reappraisal, those who were able to control their feelings of anger reported significantly less experience of negative emotions such as guilt, sadness or anxiety and had a greater experience on a range of positive emotions like, happiness and joy. As for cardio vascular responding, high reappraisers who engage in adaptive emotional regulation strategies were not found to have maladaptive forms of cardiovascular responding. This indicated that active cognitive engagement with the emotional situation, rendering it less emotional, is a helpful skill both in terms of the emotional state as well as cardio vascular responding. These findings are important

in sport psychology research because athletes experience significant amounts of cardiovascular output and are constantly looking for ways to conserve those resources. This also provides support for cognitive-behavioral, anger management interventions (i.e., cognitive reappraisal) as a preventative technique for anger that is negatively interfering with performance in sport and suggests that, when implemented correctly, they will help to preserve physiological resources during competitive situations.

Moons and Mackie (2007) investigated whether people lose the ability to process information rationally because they are angry. A dual-process model of information processing describes two modes of processing: analytic and non-analytic. Analytic processing involves deliberate and effortful thought and evaluation of information. An example of analytic processing in tennis would be perhaps, figuring out a strategy and making adjustments throughout a match to capitalize on weaknesses of the opponent. Non-analytic processing works much faster and requires less effort for processing information. An example of non-analytic processing in tennis would be actions that occur naturally to someone who has mastered a specific skill. Defensive tennis is played where the athlete simply reacts to the ball and hits it back without a planned strategy but instead reacts upon learned instincts. The experiments performed in the study created anger-inducing situations among the participants and assessed analytic processing and physiological arousal following the induced anger. It was concluded that anger associated with physiological arousal may act as a motivator of analytic thought processing as opposed to a barrier, therefore possibly enhancing performance in physical activity. Interestingly this discovery

explains the opposite of what previous research about anger has stated, where anger can impair one's ability to process information analytically.

More specifically related to sport, Robazza and Bortoli (2007) examined the perceived impact of anger and anxiety on sporting performance in rugby players. The study assessed rugby players' perception of the facilitative or debilitative effects of trait anger symptoms. A large sample (n = 197) of male rugby players participated in the study and completed the Competitive Trait Anxiety Inventory-2, a directional scale of debilitative or facilitative emotion experience, and the STAXI. Results found that players who reported a moderate frequency of angry symptoms and a high frequency of anger control found anger to be facilitative. It was also found that anger that is directed inward could be associated with debilitative moods such as, fatigue and depression.

More specific to tennis, Bolgar, Janelle and Giacobbi (2008) offered an understanding of anger and coping (appraisal) strategies with junior tennis players. In this study, 103 competitive adolescent tennis players completed a series of self-report anger measures, cognitive appraisal scales, and coping functioning questionnaires. Cognitive appraisals and frequency of anger outbursts were also measured. The results of the study were consistent with previous findings in other sports. Athletes with high levels of trait anger were predisposed to experience frequent emotional reactions to anger provoking situations. Although findings indicated that trait anger may be a predisposition of those who frequently experience emotional outbursts, trait anger indicates a personality disposition and when discussing personality dispositions it is especially important that the focus must remain on all dimensions of that

particular individual, not simply one dimension. The present study attempted to address these individual differences with qualitative interviews voiced by the individuals themselves allowing for a direct translation of their experiences with anger in tennis.

Aggression

Anger and aggression are not the same, however they share common emotion roots (Abrams, 2010). Typical research about aggression involves emotions in some way.

Most aggression questionnaires measure aggression tendencies, concepts of anger and hostility, and the perception of the legitimacy of aggressive behavior. In order to measure aggression in sport, Maxwell and Moores (2007) have developed a short 12-item scale titled the Competitive Aggressiveness and Anger Scale (CAAS). The CAAS is divided into two subscales; aggressiveness, and anger. Scores in aggressiveness reflect the acceptance of aggression as well as a willingness to aggress. Scores in anger reflect frustration provoked by losing points or games, officials mistakes, and anger reactivity in general (Maxwell & Moores, 2007). Frustration in this scale falls in line with an anger continuum where frustration is a less intense feeling of anger. In a recent critique of the CAAS, the authors commented that the scale has no way of accommodating individual differences (Keer, 2008). Again, another aspect of emotional experience that has been missed in the quantitative research that qualitative research can address.

As mentioned earlier, aggression can be instrumental, or reactive (Abrams, 2010). But what about verbal aggression? In a recent study found in the Journal of

Language and Social Psychology, verbal aggression is defined (Hamilton, 2012). According to Hamilton, verbal aggression is, "the act of using aggressive language on a target"(p. 6). He goes on to explain that verbal aggression typically elicits hostility from its target and that it also has the potential to damage the self-concept of its victims. In sport, athletes do a lot of talking to themselves, teammates, opponents, referees or officials, coaches, parents etc. More specifically in tennis, during competition a player is not allowed to talk with anyone outside of the tennis court as coaching is not allowed during competition. Therefore, verbal aggression tends to be directed toward one of three places: self, opponent, or officials. An example of verbal aggression in tennis looks like the situation from the 2009 U.S. Open where the number two seed at the time, Serena Williams, demonstrated a verbally aggressive act toward an official by saying "I swear to god, I'm going to take this (expletive) ball and shove it down your throat!" The official had just made a foot fault call against Serena that caused her to lash out verbally at her. Serena Williams was then fined and temporarily suspended by the WTA after this incident. This is an example of verbal aggression directed outward, however, sometimes aggression in tennis can be directed inward. A statement like "I'm so stupid!" is an example of what verbal aggression directed inward would look like, and is not uncommon in the sport of tennis.

In a study aimed at examining norm-breaking behaviors among junior tennis players, Hanegby and Tenenbaum (2001) looked at the precursors of norm-breaking behaviors during tennis competition in junior male tennis players. In this study 7 players were observed during 23 matches. Norm-breaking behaviors were coded as: Physical toward oneself, Body and/or facial expressions, Verbal self-directed, Verbal

direct or indirectly toward opponent, Behaviors toward property, and other inappropriate behaviors. This study found that the most common behaviors were directed at property at 37%. Behavior directed at property consisted of harming property in or outside the court: net, fences, chairs, kicking objects, etc. Following closely behind at 33% were self-directed verbal behaviors. The majority of norm-breaking behaviors instances, at 55%, occurred as a result of a fault or mistake that was committed by the player. This study found that the rules seem to be a main indicator of the types of behaviors that occur during competition (Hanegby & Tenenbaum, 2001). This study provides evidence of qualitative observational research with anger, aggression, and tennis as well as provides examples of norm-breaking behaviors however, does not yet fully describe the experience of the individual with anger during competition.

To further link anger and aggression, the frustration-aggression hypothesis proposes that aggression is a direct result of frustration that occurs due to goal blockage failure (Weinberg & Gould, 2010). However, frustration does not always result in aggression. Social Learning Theory was then proposed and stated that aggression is learned through observing others model these behaviors and followed by reinforcement for the behaviors. In somewhat of an effort to combine these two theories, the Revised Frustration Aggression Theory proposes that frustration increases the likelihood of aggression by increasing arousal, anger, and other related thoughts and emotions. Further, aggression occurs only when socially learned cues signal the appropriateness of aggression (Weinberg & Gould, 2010). As previously defined, frustration is a feeling associated with anger, and anger involves a range of

feelings, therefore, it is possible that frustration occurs as a precursor to anger, which is similar to the Frustration Aggression Theory.

Qualitative Research

Up to this point, much of the research on anger has relied on self-report measures, quantitatively assessing the impact of anger on performance. Although the Adolescent Anger Rating Scale (AARS), cognitive appraisals likert scale, The Coping Function Questionnaire (CFQ), and likert scale of frequency of outbursts all have been used in previous research (Bolgar, Janelle, & Giacobbi, 2008), measuring anger based upon quantitative assessments does not fully describe the multidimensionality of the experience of anger. The question for sport psychology lies within the idea of whether the anger reaction is helpful or harmful cognitively, emotionally, and physiologically in relation to performance. Therefore, understanding the experience of anger from the athlete's perspective is crucial toward applying psychological interventions (Abrams, 2010). Qualitative research can provide insight about the unique experiences of anger among competitive tennis players.

This study was designed to examine the experience of anger using a qualitative research approach. The approach chosen was existential phenomenology. In order to understand one's experience we must understand the context in which the experience occurred. Existential phenomenology allows us to understand the participants' world through the relationships that they have against four major grounds. They are: world, body, time, or others (Thomas & Pollio, 2002). Experiences that are remembered stand out from one or more of those grounds as one cannot occur without the other.

Qualitative research involves intensive, long-time observation in a natural setting: precise detailed recording of what happens in the setting; interpretation and analysis of data using descriptions, narratives, charts, quotes and tables (Thomas, Nelson, & Silverman, 2005). Qualitative analysis will help to understand the cognitive appraisal process that occurs during an emotional experience, which may provide insight into cognitive reappraisal.

Existential phenomenology lends itself well to study the anger experience in competitive sport settings because it gives voice to the first-person experience (Dale, 1996). When explaining an emotional experience, it is the individual's interpretation of that experience that gives qualitative research its validity that assessments and inventories used in quantitative research cannot capture. This is necessary to identify when studying anger since the experience is tied to cognitive appraisal. This study used phenomenological interviews to examine that experience and adds to the existing research about anger and emotions in sport. The existential phenomenological method fits well within the sport of tennis, as it is an individual sport with a unique set of emotional, physical, and psychological demands that can be examined through the phenomenological interview.

Tennis

Demands and nature of the sport:

Tennis requires a significant amount of cognitive decision-making due to the fact that a player is on the court by themselves, without the help of coaches (Braden, 1993).The physical demands are also important to take into account when examining the sport given the energy required of the mind and body take during a tennis match.

Tennis requires short sprints, quick footwork, high levels of endurance, and high levels of motor coordination in order to play at a competitive level (Braden, 1993). These physical and cognitive demands in addition to maintaining the proper "tennis etiquette" on court can lead to elevated levels of stress and frustration that may lead to an angry emotional reaction (Hangeby & Tenenbaum, 2001).

Tennis is a sport that has a unique set of rules and social standards that specifically address behaviors considered to be appropriate on the court while competing. Within the tennis community these social standards and expectations are typically referred to as "tennis etiquette". Tennis is considered to be a non-aggressive sport because a net physically separates the players from one another and the rules forbid any contact between opponents. Because of these rules, emotions and behaviors manifest themselves differently on the tennis court when compared to contact sports, such as football, basketball, or rugby. Displays of these emotions and behaviors are typically shown through verbal outbursts, disagreements with an umpire or referee, or the mistreatment of equipment and/or property (Hanegby & Tenenbaum, 2001). It is possible that these behaviors can be a result of an individual's response to anger. From a behavioral perspective, these behaviors are believed to be learned. Therefore, in order to prevent inappropriate behaviors, such as an angry behavioral outburst of threatening an official on the tennis court, the athlete will need to "unlearn" those behaviors by reinforcing and practicing more facilitative behaviors, allowing the individual to compete to the best of their ability (Abrams, 2010).

Rule breaking behaviors on court may be related to frustrating events that occur on the tennis court such as: services faults, unforced errors (i.e., missing a shot by hitting it out or into the net that would not normally be missed), opponents' successful maneuvers, and failing to implement a planned strategy while in competition (Hanegby & Tenenbaum, 2001). Previous research has based measurements of anger on self-reporting scales, anger assessments, and observations in an attempt to identify those tennis players who may be at risk of displaying rule-breaking behaviors on the tennis court. Findings have shown that individuals who score high in reactive anger display more angry outbursts (behavioral and verbal) when compared to those who score lower (Bolgar et. al., 2008). Therefore, missing from the current research is an examination of the experience of anger that leads to these behavioral reactions.

Demands of competitive tennis.

Many tennis players who compete at a regional level or higher invest a significant amount of time into practice, traveling, and tournament play throughout the entire year (Braden, 1993). Each participant in a tennis tournament will have his or her own life stress coming into tournament play. Some may be professionals working to build a tennis career by traveling around the world weekly. Others may only play locally in specific tournaments and maintain fitness and competitive level of play on their own with or without the help of coaches. Participants of a reasonably high ability level of tennis were chosen as the higher ability level of tennis, the more committed the player. Those who have invested a significant amount of time and effort into becoming a collegiate or professional tennis player are bound to experience

emotions throughout the process as it is of a significant importance to them. One of the goals of any athlete at an expert level is to perform to the best of their abilities. If and when that does not happen or something, like anger, gets in their way and prevents that, what happens? This study attempted to uncover the reality of those who experience anger on the tennis court and shed light on the many demands of competitive tennis as described by the participants.

Summary

The review of the literature in this paper has identified operational definitions of emotions and anger, discussed emotional processing, identified emotion-performance and anger-performance relationships, provided a description of tennis and its unique physical and emotional demands, and identified demands placed on competitive tennis players which may impact their experience of anger. This literature review provides a framework for the current study and highlights the gaps in previous research that an existential phenomenological qualitative study will attempt to fill.

Examination of the experience of anger in sport psychology research is nearly non-existent. As sport psychology consultants it is our job to listen and empathize with athletes to gain as much understanding as possible of the experiences of each individual in order to effectively aid them in improving their experiences and performance. The goal of this research was to give a voice to those experiences by obtaining the first-person interpretation of competitive tennis players and their experience of anger during competition. It was anticipated that the results would provide insights for coaches, athletes, and sport psychology consultants who work

with tennis players and can use the information when dealing with anger and performance-related issues.

CHAPTER III: METHODS

Purpose of the Study

This study was designed to examine competitive tennis players' experiences of anger during competitive matches. More specifically, phenomenological interviews were conducted with collegiate and professional tennis players to examine their experience with this emotion in depth. This study asked participants, "When you think about your experience of anger in tennis, what stands out for you?" in an effort to gain insight into personal experiences that can lead to the development of intervention strategies for anger coping skills and management.

Participants

The participants in this study were competitive tennis players over the age of eighteen who have an individual ranking at a regional, national, and/or international level as determined by the USTA, ITA, WTA, and ATP. The number of participants was dependent upon the saturation of data that was collected from the interviews. Saturation of data is based on the re-occurrence of common themes among the separate interviews. The number of participants depended on the repeated themes found in each interview. There were ten participants in this study.

Instrumentation

The instrument chosen to describe the experience of anger was the phenomenological interview taken from an existential perspective. In order to understand existential phenomenology one must abandon the belief that there is only one way of knowing (Dale, 1996). When studying a human emotional phenomenon (i.e., anger), the traditional scientific view can be restrictive. Existential

phenomenology lends itself well to researching an experience because the process allows the researcher to be able to accurately describe and understand the experiences of those being interviewed.

Philosophical origins lay the foundation for existentialism as a way of understanding the motivation of behaviors, thoughts, feelings, and actions. Existentialism is concerned with how people come to live an authentic life (Dale, 1996). These ideas were then interpreted through the phenomenological interview, which are prompted by the researcher's question. The phenomenological interview provides a model that allows an experience to be described in full detail in the first-person. Dale (1996) stated, "the two (athlete and world) cannot exist apart from each other and each individual and his or her world are said to co-constitute one another" (p. 309). Essentially the research cannot accurately talk about the athlete's experiences without talking about his or her world. "As researchers in the field of sport psychology, we can learn a great deal about the experiences of athletes if we allow them the opportunity to tell us via interviews where they are free to describe their experiences" (Dale, p. 309).

Procedures

The procedures in this study were based on Thomas and Pollios' (2002) recommendations for conducting existential phenomenological research. This includes the processes of exploring researcher bias, selection of co-participants, and data collection.

Exploring Researcher Bias

Researcher bias was identified through bracketing. This process involved the researcher being interviewed by an individual with qualitative research experience in order to identify any personal perceptions or biases regarding the experience of anger during competitive tennis matches. The researcher was asked questions about why she was interested in conducting research about the experience of anger during competitive tennis matches as well as subsequent questions that the interviewer deems necessary for gaining insight into personal bias and perceptions. These questions included the researcher's opinion about anger in tennis and her own personal experience of anger and competitive tennis. The interview was conducted by an individual familiar with the interview process, audio recorded and transcribed verbatim. The analysis of the interview revealed potential biases that may have interfered with the interpretation of participant interviews. This information was taken into account in the analysis of the interviews.

Selection of Participants

IRB approval was obtained prior to selecting co-participants for the study. Also, permission to conduct this study was obtained from the tournament directors before the researcher approached any players. Participants were approached at the tennis tournament within one hour of completing their match. Any participants who were willing to take part in an interview but not during the tournament, were given the option of being contacted and interviewed by phone at a time and place of their choosing. They were asked for voluntary participation in an interview about the experience of anger during the match they just finished. The procedures were

explained to the participants and if they chose to participate, they read and signed the consent form.

Data Collection

Interviews were recorded on an RCA digital voice recorder and transcribed verbatim. Each participant was asked to choose a pseudonym so as not to be identified by name to ensure confidentiality. All consent forms containing the names of the participants were kept in a locked filing cabinet drawer after the interview was conducted. The participant was referred to by their alias from that point forward. The phenomenological interview was unstructured and began with an open-ended question. The question for this study was: “When you think about your experience of anger in tennis, what stands out for you?” The participant was considered the expert and determined the course of the discussion. The researcher did not intentionally lead the process by asking probing questions. The role of the researcher in this type of interview was to ask for expansion and clarification about the experience. The participant determined the length of the interview. Nine interviews were conducted over the phone and one interview was conducted face-to-face.

Bracketing Interview

For this study the primary researcher participated in a phenomenological bracketing interview in order to illuminate and bring recognition to her own perceptions and biases regarding tennis players experiences of anger during competition. The primary researcher was asked initially why she was conducting the research and subsequent questions that investigated a range of topics including her opinions on tennis, her own experience of anger in tennis, and any other biases that

she may bring to the research process. The analysis of the interview revealed potential biases. The researcher expressed a negative experience of dealing with anger during competition during her own experiences with tennis. On many occasions she expressed how anger would be a hindrance more so than helpful during a tennis match in her own experiences. She reflected upon why she would like to conduct this research and commented that it is a issue that is of personal importance to her as she also coaches the sport and sees individuals struggling with the same problems with anger as she did.

Design and Analysis

The qualitative data from the interviews was analyzed according to Thomas and Pollios' (2002) guidelines. After the interview, the participant was asked if there were any questions. A copy of the consent form was given to the participant, which included the contact information of the researcher. All interviews were transcribed verbatim. Once transcribed, the recorded interview was deleted immediately from the RCA digital voice recorder.

A group of two people were selected to read and review the transcribed interviews to help identify a thematic structure. This group was selected based upon their experience and knowledge about qualitative research in general and the process of analyzing phenomenological interviews specifically. This group gave their recommendations on the meaning units and the thematic structure of the analysis. The researcher read and reviewed all transcriptions and took these recommendations of the group into consideration to develop the final version of meaning units and thematic structure (Creswell, 2007).

The thematic structure included the meaning units, the sub-themes associated with the meaning units, and the evidence supporting the relationship of the meaning units and sub-themes. Once the thematic structure was outlined, the researcher then integrated the results into an in-depth, exhaustive description of the phenomenon. Once the descriptions and themes were obtained, the researcher approached the participant a second time to validate the findings. The researcher contacted the participants by email asking them to check that all quotes were accurate on their behalf in order to member check and validate the findings. Two of the ten participants have responded thus far. When findings were validated and confirmed by the participant, the researcher made changes, if necessary, as described by the participant, and finally discussed the findings of the phenomenon (Creswell, 2007).

CHAPTER IV: Results

The purpose of this study was to examine the experience of anger among competitive tennis players. This was achieved through ten in-depth phenomenological interviews with competitive tennis players. In this chapter, a description of the participants is presented along with a presentation of the thematic structure that was developed from the interviews. This chapter will provide general themes, sub-themes, and sample quotes to demonstrate what the participants said and how that is reflected in the themes.

Participants

The final sample of participants consisted of five male, and five female competitive tennis players. Their ages ranged from 18 to 43 years old. This sample included competitive professional, and collegiate level players from Europe, the United States, and Australia. A description of the participants along with the pseudonym used for each player is shown in Table 1.

Communication and Perception

In an effort to describe the experience of anger in competitive tennis matches accurately, communication between the researcher and participant had to be assured. Because this is an existential phenomenological study, the communication during the interview must be obtained with the spoken word. The spoken word provides the individual's point of view with the most accurate meaning. Phenomenological inquiry necessitates drawing meaning from what was said as well as how it was said. In order to derive meaning from the spoken word, the individual described his or her own perspective driven by their understanding of their own reality. The spoken word

conveys meaning, which may not be available through written communication (Primozic, 2001, p. 69).

The perception of the experience is important for phenomenologists to capture during the interview and analysis process. According to Thomas (2005) “it is perception that opens us to reality, providing a direct experience of the events, objects, and phenomena of the world” (p. 69). Sports are a highly physical experience with most emphasis placed on technique, fitness, and athletic abilities. In contrast, the current research process allowed participants to share their personal experiences about an emotional state that is also experienced on the tennis court, but is not typically emphasized in as great of detail when compared to the physical components of the experience of competitive tennis.

Table 1.

Descriptions of participants

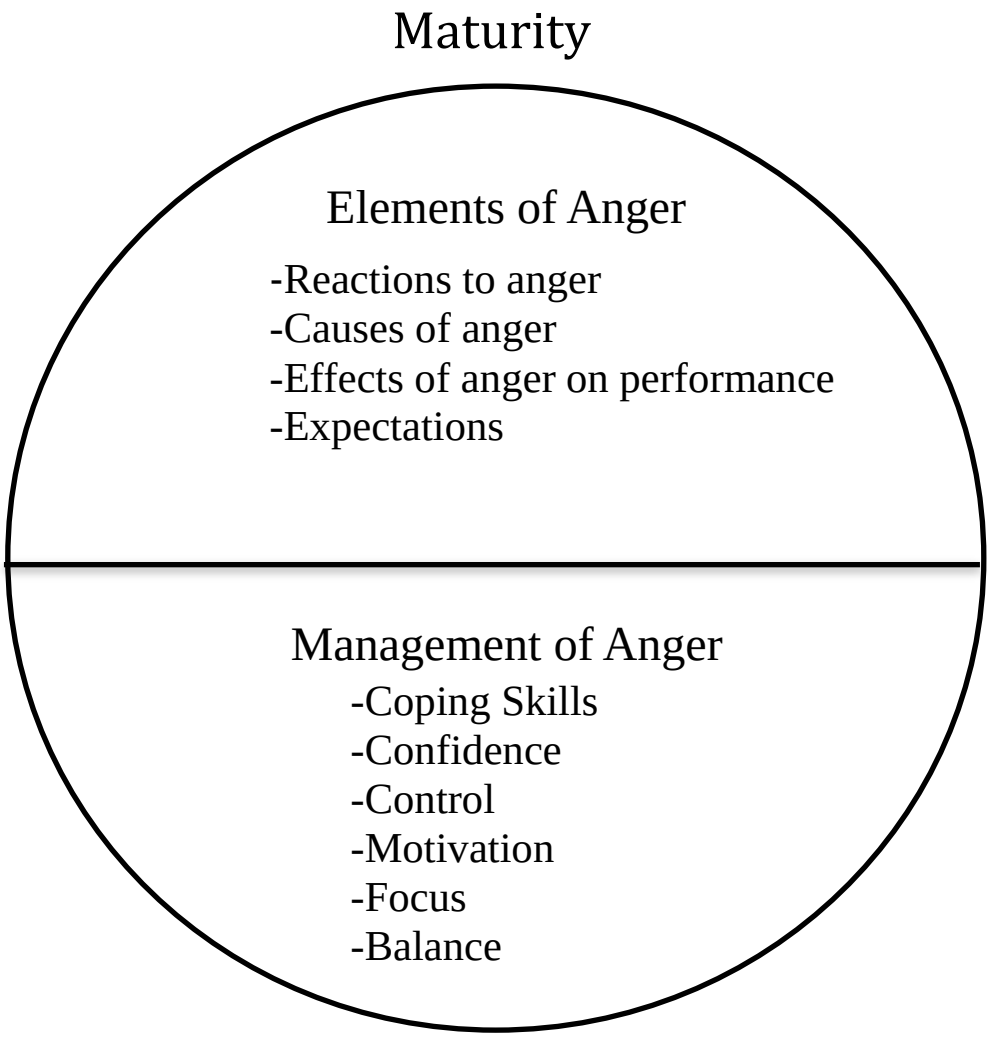
Pseudonym	Age	Country of origin	Highest level of play	Gender	Interview time in minutes
Kristin	24	Scotland	Professional	Female	61:00
Jamie	18	USA	Professional	Female	27:02
Chris	43	USA	Professional	Male	27:00
Kate	30	USA	Professional	Female	19:06
Adam	28	USA	Professional	Male	34:29
John	22	Australia	Professional	Male	22:11
Sam	25	Australia	Professional	Male	23:40
Tony	20	USA	Collegiate	Male	19:01
Jennifer	24	Czech Republic	Collegiate	Female	21:16
Lynn	23	Switzerland	Professional	Female	17:45
(N=10)	(M=25.5)				(M=27.08)

The Thematic Structure

From ten verbatim transcripts, 287 significant statements (meaning units) were extracted. Those statements were further grouped into sub-themes and general themes. A visual depiction of the thematic structure can be found in *figure 4.* The major ground from which all themes emerged was **Maturity**. Within maturity were four themes: *change in perspective, acceptance, growing up, and the learning process.* Two dimensions stemming from that ground were also identified: **Elements of anger** and **Management of anger**. Themes that fell within Elements of anger were: *reactions to anger, causes of anger, effects of anger on performance, and expectations.* Themes that fell within the dimension of Management of anger were: *coping skills, confidence, control, motivation, focus, and balance.* In total 11 themes were identified.

Figure 4.

Organization of thematic structures



According to Thomas & Pollio (2002), existential phenomenologists use four major grounds of existence to gain a full understanding of the participant's perspective. Those grounds are: *World, Body, Time, or Others.* Experiences that "stick out" in a person's memory do so because the stand out from one or more of those grounds. Therefore, existential phenomenologists must take into account the context in which the experience has occurred, as one cannot occur without the other.

It is important to note the sub-themes fall into one of two themes of the interview process. Taking the lead of each participant during the interview, each theme fell into a trend of two categories. First, **Elements of Anger** included definitions, explanations, and feelings about anger. Those meaning units then lead to a second dimension of the interview that fell under the category: **Management of Anger**. These two dimensions are discussed separately because each interview followed similar patterns. These separate parts of the experience of anger in competition are what make up the whole and emphasize the many parts, or multidimensionality, of the experience. Interestingly, all participants followed a similar narrative.

Maturity.

Maturity is the major ground to which all dimensions and themes stand out. To many tennis players, maturity may seem a bit obvious to be listed as a subtheme, however the subject of maturity appeared in many contexts throughout the interviews and for everyone, was a common overall dimension in the experience of anger. Maturity, therefore has been divided into four separate categories: *Change in perspective, acceptance, growing up,* and *the learning process.* Simply describing *Maturity* in a general context did not fully describe the entirety of the process or experience of the management of anger for these participants.

Changes in perspective

Changes in perspective indicated a recognition of a time where cognitions and behaviors began to change in their performance on the tennis court. A change in perspective occurred as part of the process of maturity for the participants in this study. Obviously, the older the participant, the more insight they seemed to have

about the subject of maturity as they were able to see changes throughout their career and were consciously aware of when those changes occurred. Some of them realized that they are still in that process, others viewed the management of anger as something they are still challenged by, but were able to keep it under control due to previous experiences. Sam discusses when he began to see this shift in perspective. "In college I didn't realize how much it was actually hurting me to get angry on the court."

Coming from an older participant, the discussion was more about the change in perspective that had already been made, and how that changed the way he views tennis and competition now.

> "Yea, you know, you get a little older, and a little bit more mature and you realize, I think you kind of put it into perspective too. You know, its like, you get older and a little bit more mature and you realize…tennis isn't everything. Even if you are playing at a high competitive level, you know, if I'm playing for a national championship, which is a pretty big deal in my world, it's still just tennis. And, really getting that grasp and I think when you are growing up, you literally feel like it's your whole world, and then you relate losing to failure, and I think that is where the switch happened for me." (Chris)

Kate did not experience struggles with anger as often as compared to others in the study. Not surprisingly she found her emotional management to be consistent throughout her career including juniors. "The game for me didn't really change much so I didn't notice a change in myself in my career. It pretty much stayed the same throughout."

These changes in perspective that occurred in some of the participants' experiences seemed to be turning points in understanding anger and beginning to accept it as part of the game. The next section under maturity describes that acceptance.

Acceptance.

Acceptance that anger occurs out on the court was a natural conclusion that each participant came to in each interview. In some cases, admitting that anger was a problem and accepting it as an emotion that is going to occur was half of the battle. Fighting the anger on court seemed to be counterproductive for most. Below, Chris describes how showing anger on the court is disrespectful to the opponent, however, being able to accept the anger and not spend time fighting it was the best way, for him to let it go.

> "I realized that sometimes anger inside of me was very disrespectful to my opponent. Like, I now teach my son that and my daughters that: hey, when you get angry out there, that you are competing against someone else who is doing the same thing you are doing. And it's very disrespectful, in my mind, to try and lash out, and you know, I don't really believe it anymore. And I think that if you want to be a great tennis player that you really need to control it, kind of respecting them, and for me that is staying pretty calm. You know, I'm not saying that I never show emotion but you know I just kind of keep that blank slate face and fighting spirit the whole time and let the chips fall where they may. And I can't tell you that right after a match that I lose, I am not a little mad or angry, cause I absolutely am. I'm not happy with it. But you

know, the next day you wake up and it is what it is. You realize tennis is just tennis."

For Kristin who struggles with perfectionism at times, acceptance was more about learning to accept mistakes,

> "If it wasn't for my anger I wouldn't be out there playing futures right now. I think that tennis has this stereotype where it has got to be "classy" and all quiet and proper sport and it's really not anymore and I don't think it ever really was. I think that it is about trying to find a balance. Trying to be as classy as possible out there but there has to be a release at some point. I am definitely better than I used to be. The more you understand your game and capabilities…I know people say that you are capable of anything, but you know, at the same time, I am less capable of a clay courter standing ten feet behind the baseline and hitting twenty balls in a row…and it's understanding your game. And I've started to accept the fact that I have an aggressive game and I am going to have a lot more winners than others but at the same time have a lot more mistakes too. But I have become a lot more accepting of making mistakes than I used to be."

Jamie explains that she does not struggle with anger very much. As the youngest participant in the study, she has accepted the reality of bad days at a young age comparatively speaking. "You just need to be able to accept that you are going to have bad days sometimes and move on. I don't feel that anger helpful otherwise."

Growing up.

Each participant had his or her own story about *growing up* and described what dealing with anger was like during junior tennis. Some described their actions in juniors as irrational.

> "I can remember very, very irrational behavior against a woman that I could never beat. She was one of the top players in my region growing up and we had to play each other in a semi-final, and I thought we should have met in the final. Anyway, my coach had set up a camera in the corner and I aimed the entire match for the camera trying to hit it and knock it down, and I think it has to do with the fact that as a junior I didn't want to be seen as messing up or losing. I can remember that match so well. I was very irrational back in the day and I didn't really process things, but that got better with just understanding my game more and just growing up. (Kristin)

For Adam, his father had a very big impact on the way he learned to handle anger from the very beginning.

> "My first tournament that I played in, I was probably nine or ten years old, I didn't really know how to handle losing. I was playing an older kid and getting beat really badly, and I definitely didn't know how to control my emotions so I would throw my racket and my behavior was very poor. I would yell and scream and my dad is pretty strict so when I got off the court I was pretty scared because I knew I was going to get into trouble for the way I behaved but he didn't yell at me. He took my racket away for a month and didn't allow me to play at all. So I learned that if that is what can happen

when I play, then I am not going to play. And that extremely changed my anger on the court. “

These examples of *growing up* describe what immaturity looked like as part of the process of emotional maturity. All participants have described maturity as something that occurs over time and with experience. The next section provides examples of *the learning process.*

The learning process.

Learning to deal with adversity, emotions, and physical limitations in tennis, as in anything, is a long process that is based upon experience. Learning from experiences that make one angry can be particularly difficult as when someone is angry, the reaction is not normally to sit down and talk about the feelings but to act out emotionally in some way. The idea is that some type of release of the pent up frustration can help them to let go of that anger. The participants in this study emphasized the difficulty of trying to control anger during the moment it occurs as it is, at times, an internal battle. It takes a great deal of emotional maturity to be able to recognize that anger is not helpful in that moment and change focus to not let it get the best of the players ability to perform at their best. Finding out what works best to let anger go and move on is based solely on the individual, and even that can change from match to match. Many have found success in cognitive strategies that prevent anger from escalating. As Chris describes below, it’s about the story he tells himself that helps him get into a positive frame of mind.

“ Ok, I think it’s like listening to the story in your head and you wake up after losing that match and you tell yourself, ok what kind of a story am I going to

tell myself today? You know, am I going to start working hard if I missed a lot of forehands or backhands or my return wasn't working that day? Am I going to start focusing on that instead of the negative stuff? You know, like the, I can't believe I missed this shot. You just need to learn from it and move on. And that happens a lot quicker now than it did back in the day, because I had to practice doing that. Now I am trying to teach the kids that I coach and even my own kids, is you know, how to channel that at a young age. That it's OK to have anger, but what are you going to do with it, and let's turn that into a positive instead of a negative. So I think coaching plays a huge part in teaching people how to handle it."

Although Adam still plays competitive tennis, it was through coaching that he tried to facilitate the learning process of dealing with emotions on the court. He also admits to himself how it is a process that needs time to be learned.

"Mostly now, from being a tennis teaching professional, that is probably the toughest thing, I think, to try to teach students (dealing with emotions). It's almost like some people get it and some people don't. Maybe some people matured differently than others but I know for me it was a learning process, where I had to learn over time how to control my emotions on the court in order to benefit my performance. I think that in most cases, anger cannot help your performance on court."

For some working with a sport psychologist has helped: "For me, it used to be a regular occurrence to throw a racket and get frustrated on the court, but mental training has helped. I worked with a sport psychologist who watched me play and

helped me see that my demeanor on the court, being down on myself, and negative self-talk really was bad for the next point. With mental training I worked on visualization and breathing to gain concentration and bring my stress levels down on the court." (John)

Dimension 1: Elements of Anger

Elements of anger emerged as one of the two major dimensions of this study in the experience of anger among competitive tennis players during competition. This dimension encompassed tennis players' descriptions of how they come to understand and define anger. This theme included four themes: *reactions to anger, causes of anger, effects of anger on performance, and control.*

Reactions to anger.

The tennis players in this study indicated that the initial reaction to anger was negative, or not helpful to their performance on the court. This sub-theme, *reactions to anger*, not only gives examples of initial verbal reactions to anger, but also how participants behaviorally reacted to anger. They expressed varied levels of anger ranging from hatred to frustration to annoyance. Each of these feelings were seen as obstacles they faced during matches which made it more difficult to compete to the best of their abilities. As one player who has struggled with anger throughout her career explains:

> "When I think of anger, I think of, not just the times or events where I have lost my temper, which obviously happened a lot more in the juniors and still happens a lot more often than it should now, but I think of the times I've been approached about my anger. Its not so much about how I have been acting on

the court, but the first thing that pops into my head is that when people tell me "oh you have to fix your anger" or "you have to get control of your anger" or "you can't be so self-destructive." Like all of the kind of people that get on my back is what I think of. I think of my anger, especially in juniors, and how it held me back like it can still do sometimes." (Kristin)

The quote above describes one of many reactions about the experience of anger during competition. Early in the interview process, after participants were asked the initial question of: "when you think about your experience of anger on the tennis court, what stands out for you," many participants described behavioral reactions that occurred as a reaction to the anger or frustration they experienced on court. These behavioral descriptions consisted mainly of examples of throwing rackets, yelling at opponents, referees, or coaches, hitting themselves with a racket or slapping themselves. All of these describe the behavioral dimension of reaction to anger, however, these behaviors simply describe the visible and physical aspects as a result of the feeling of anger.

Another example of a reaction to anger that seemed to be a common theme across the interviews can be described in the following quote by Tony:

"Sometimes when I am mad, I tend to lose my focus and I look like a chicken with my head cut off. Just running around hitting the ball hard and not really thinking about what I need to do or change to make this work. I don't really throw my racket or anything like that, but my head goes down and my shoulders slump. My emotions really affect my behavior on the court and how I play."

For Chris, a 43 year old former professional tennis player from the United States, anger and frustration were divided into two stories: growing up in junior tennis and playing tennis as an adult. It looked something like this:

> "I'll give you a before. Frustration used to look like, trying to look for excuses to lose. You get cheated, or hit a forehand down the line and are pretty sure it was out by a half inch, but the guy calls it out and you are freaking out because you feel like you are getting hooked. But you really are not getting hooked and you are just upset you missed and are trying to vent. Like sitting at changeovers and are down 6-4 or even won the first set 7-6 but your mind would just be so frustrated because this would be like the 4th round of a tournament and your mind just says "I just want to get out of here, or I don't want to play this match anymore" you know, and now I call that a cop-out mentality." (Chris)

Some participants explained that they do not really experience anger on the tennis court but rather frustration as a result of a missed shot, or not being able to play at their best. Below Jamie, an 18-year-old professional player from the United States just beginning her career describes frustration.

> "On court its really more frustration than angry for me. I feel like there are some players that go out there and feel like they should be able to maintain a certain level every day, but some days that just doesn't happen. Everybody has their off days and for me it's more frustration than anger when I am not playing as well as I could be. I feel like anger is unnecessary because not everyone can play good every single day. And just because that one day when

they might not be playing so well, and then they are slamming their racket or hitting balls out of the court, I don't know, I feel like it is unnecessary. They are getting their anger out but it is not a feeling that is going to make them play any better by doing that."

As with all participants in this study, anger evoked negative memories and all had examples of anger having a negative impact upon their performance during competition.

Causes of anger.

While reactions to anger and causes of anger were similar, they were not listed in the same sub-theme category due to their context. After discussing their initial thoughts about anger in the interview the following are some examples of what these participants feel are the causes of anger. Some mentioned personality characteristics and not being understood while others mentioned specifics about the way they were coached and brought up being taught how to handle emotion. Below, Kristin explains what she believes causes her anger on the tennis court.

"A lot of people have said, you know, it's because you are insecure on the court, that it is your way of trying to take the focus away from that. I know throughout juniors, definitely what other people would see was like, if I was down against someone I should be beating and I knew I was better than I would just be angry and a lot of people on the outside would see that. But deep down I look back and see it now as panic like "oh no, I'm losing!" and people would see me basically just shut down or tank back in the day.."

John, a 22-year-old professional tennis player from Australia recalls underperformance as the cause of his frustration. “Frustration for me comes from not playing well. Especially if I am missing shots that I normally make, or making a lot of unforced errors. Line calls are the biggest thing that frustrate me because it is outside of my control if my opponent is making bad line calls.”

Instead of anger being triggered by something outside of the player’s control, some described anger as triggered by a different emotion that prevented them from playing their best. Jennifer is a 24-year-old collegiate player from the Czech Republic. She describes frustration being triggered from nerves: “For me, I don’t really get angry, I get more nervous. And I don’t like when I get nervous because I start pushing the ball instead of playing the way I know how, so that leads to frustration for me.”

In summary, causes of anger were an important component of understanding and explaining the experience of anger within this group of participants. During the process of defining their experience, participants found themselves describing their emotional experiences at a very personal level. The process of learning what triggers their anger on court helped some participants later discover the ways in which they manage that anger.

Effects of anger on performance.

The next element of anger describes the effects of anger on performance. Each participant included a reference about how anger affected their performance on the court. For the participants in this study, the general trend was that anger had a negative impact upon performance. All participants said at one point throughout the interview that anger is not a helpful emotion during competition. The participant with

the most experience describes below the effects of anger on his performance on the court.

> "When I was younger, my father instilled in me a big will to win. And from that will to win, you know, things didn't always go your way. And when things were not going my way, I remember a lot of times I would struggle with anger because I wasn't sure how to channel it. I can remember times being on the court where I was just so frustrated and not know what to do with it, and I remember losing matches, several matches because of it. I would all of a sudden get fired up and wouldn't be playing well that day and I would just get choky, you know, lose the whole match because of anger." (Chris)

For Chris' experience, not knowing how to lose at a young age was a cause of anger that affected the outcome of his matches. Many players in this study describe situations during matches and competition where anger seemed to take over at times and impact performance. Kate a former collegiate and professional tennis player, describes this below:

> "Sometimes, you know, you do break a little bit on the court (because of anger) and kind of get sloppy…like being in a tight match and miss a couple of points for basically no reason and the other person is getting the lead, so you give away three more points just because you are angry. But then realize you just played stupid and you are not using your head and letting the emotions take over the way you play. I definitely believe that anger clouds your judgment at times on the court." (Kate)

Kristin describes an experience where releasing the anger on court was necessary for the success of her performance.

> "A lot of times, if I am down in a match, I start verbally bashing myself where everything I say about myself or do is crap. I become like a running commentary that is hard to control. I don't really throw rackets but I remember one match where we were down in a doubles match, and playing like crap. So I decided that I need to release this (anger). I have done this many times where I have smashed my knuckles against my racket and caused them to bleed. So I punched my racket, but that was it. It was done. We came back and won five games in a row and we ended up winning." (Kristin)

This reaction, to some, may seem extreme or not helpful, however for Kristin releasing anger that seemed to be getting in her way was somewhat cathartic, and allowed her to let the anger go and move on during this particular match. She was quick to note that this does not always work, but that every once in a while, releasing the anger does help.

Sam, a 25 year old professional from Australia, reflected upon his experience as "seeing red mode" where "red mode" was the peak of his intensity level in the anger experience.

> "When I am in seeing red mode, I start rushing everything. You try to hit balls as hard as you can but that doesn't really help because you just miss more. My game just deteriorates when I get angry on the court and I stop thinking logically. I remember one time where I lost 5 or 6 matches in a row where I had match points, and I just had a meltdown. After that it was hard to recover

because I would almost be sulking out on the court and feel sorry for myself and then just rollover, feeling defeated instead of fighting harder." (Sam)

Many players described a feeling of being at a loss for what to do or how to handle their anger when they were younger. This lead to a feeling of defeat, not only by their opponent, but also by being defeated by themselves on the court. This contributed to a cycle of feeling angry not only in the current match, but also future matches.

Expectations.

"I should be winning," "I should be able to play better than this," "what will my coach/parents think?" "You have so much talent but still lose." Statements like this were common among participants when talking about their experiences of anger as they would describe getting angry and then would explain why they would get angry. Many of those explanations were similar to the statements above as their expectations for how they should play, compared to the reality of how they were playing did not match, which, in some cases, led to feeling angry or even a behavioral outburst like throwing a racket or yelling.

The expectations of coaches, parents, or even the athlete themselves seemed to be a source of frustration for many of the players in this study, specifically when they could not meet those expectations. As Adam recalls:

"When I am not playing well, some of the thoughts that might go through my head during a match that I should be winning are like: I should be beating this guy; this is embarrassing; what is my coach going to think; are they going to be upset with me?; what's wrong with him…etc., that kind of stuff."

For Chris expectations seemed to change over time, and he expressed that fighting anger in tennis was counterproductive for him.

> "I would say 17 or 18 years old was really when a change started to happen, and you know, obviously, when I played on the tour, losing is part of it. Going to a tournament, only one guy wins the tournament. I didn't win a satellite (tournament) so I lost every week. So for me, losing was part of it. Where growing up I was winning a lot of tournaments, so the expectation there was high. So the change came when I said (to myself) I've got to learn how to love it and not fight it all of the time and understand that losing is just part of the game. There is no question about that. And, I think that is when a change took place. You either learn how to…well you don't learn how to lose, but you learn how to shake hands and say look, I gave it my all and that is all I had. That's all I could do."

The circumstances played an important role in expectations for John as he explains:

"Expectations play a part in it for me but it depends who I play. For me, I become angry a lot quicker if I am expected to win." (John) For others, personality characteristics that hold true both on and off the court can contribute to expectations and thoughts about expectations while playing.

> "I can be a perfectionist on and off the court sometimes. I mean, I have been like that my whole life. Like at school I have always been able to get good grades without studying a lot and so I kind of expect the same with tennis. Like I don't expect to win all of the time, but with my technique, I expect it to

be there all of the time. But tennis is not like that so it's pretty hard for me. On court I expect my shots to be on, and everything to feel right, but that doesn't always happen and that is when I can get angry." (Lynn)

Kristin also describes perfectionism. She can remember the expectation from early on in junior tennis and how that has hurt her performance more than it has helped:

"It's almost a curse at times, just because of the expectations, you know? Of course you know when you are good at something and there are all of these people feeding your ego and telling you how talented you are, so then you know it yourself and you have this expectation. Sometimes I kind of hate the fact that I grew up being told that so much, especially by some of the world's best, because it makes losing feel sort of like failing, and I do not like it."

For Kristin, the expectations and potential became a burden more than a motivator growing up, making it difficult to deal with and reach.

Expectations of those off the court and from the players themselves seemed to be a source of frustration during times of poor performance. When the expectations crept into the players' thoughts, they realized that these thoughts were harmful to their performance as it added to the pressure they had already felt.

Dimension 2: Management of Anger

In the next group of themes, the participants discussed how they manage anger. This dimension consisted of the following themes: *coping skills, confidence, control motivation, focus, and balance.*

Coping Skills.

As an extension of the maturation process coping skills are the skills that one learns over time in order to deal with the anger and frustration that occurs on the court effectively. Kate was not one to experience difficulty coping with anger on the tennis court, but admits that she does experience it.

> "After having a little breakdown, you kind of take a little rest to take a breath and regroup. That way you know by saying okay, I got this, you know, next game and then you just kind of let that anger go away. And then you can really focus on getting that break back and taking it one point at a time until you get the set. So for me, self-talk helps me get through it. You can't dwell on it so you know, it's not really helping. And so I just have to say, okay, I have to do something different because obviously this isn't working, so you have to use that as a little bit of leverage in order to change your mind and mental attitude."

For Adam, he described what it is like when he is playing in an optimal "zone of focus and concentration". During that time, he describes some of the skills he uses to maintain that "zone."

> "I try to control my thoughts. I am aware of what I'm doing and I try to keep everything as simple as possible. So for me, I play every point as its own especially in competition. I try to stay in the moment to be able to recognize an important point. Saying a catchphrase that gets you extra focused helps too. I use short catch phrases like no letdowns, or right here, come on, or let's go because they help you to remain in the present and remain engaged, versus, I

feel a lot of people try to correct themselves during a match which I think is more of a hindrance. I don't think it is nearly as much about that as it is about staying as focused as possible for every possible point you play."

John dealt with unmanageable stress levels that he was unsure of how to handle. It was at that time that he sought the help of a sport psychologist to be able to build up his skills on how to maintain stress levels and emotions on court. "I worked with a sport psychologist where we worked on my breathing to help bring stress levels down. We worked on noticing physical sensations like being out of breath, and not relaxed. Working on breathing techniques helped with my energy levels because staying relaxed helped me to conserve more energy on the court."

In summary, these quotes describe unique skill sets that help these players find and maintain consistent and in some cases, successful levels of play. These skills are described as *coping skills* because anger is viewed as a counterproductive emotion. Thus, coping skills are necessary in order to cope with the stress that the emotion creates.

Confidence.

Having coping skills, for many participants, seemed to build their confidence in their ability to deal with emotions on court. When this occurred, a positive increase in their performance was described. The following is a quote that best summarizes this experience.

Adam stated in response to a follow up question about confidence: (when confident) "I don't experience many thoughts at all. It is just more relaxed overall. You are able to recognize things that your opponents are doing. Being

more relaxed allows me to swing out more on my shots, allowing me to be more aggressive without losing control of my shots. When you are confident versus not confidant, the biggest difference is when you step up to hit the shot. With confidence, you pick the spot, you hit the spot. And when you are not confident, you pick the spot, and you hope that it goes in. So you become fearful and your body becomes tense and your muscles become tight, and that prevents you from doing what you wanted to do."

In some cases a lack of confidence stemmed from being angry. In others being angry decreased confidence levels. These dimensions of confidence ultimately were created by their motivations. Understanding what motivates an individual to play at their best is key to being able to predict successful outcomes in performance.

Control.

For each participant, control was mentioned in relation to anger. The nature of the relationship between anger and control was discussed under different contexts. For example: anger spiraling out of control; becoming angry because they could not control the situation, opponent cheating, learning to control only the controllable, and staying in the moment to maintain emotional control. Tennis, like most sports, requires the ability to control the physical and mental aspects of the game. Therefore, it was not a surprise when the word "control" appeared in the majority of the interviews. Many described this control as an internal experience when discussing emotions and found it to ultimately be harmful to their performance. In some cases, anger that was created from an outside source motivated players to perform better, as Sam describes in response to a follow up question:

"I never really thought about it that way but when a player cheats me, it changes the direction of my anger because I get angry with them. If my anger is directed toward my opponent because they have made me mad, it's helpful to me. When I am angry with myself, it is harmful to my game. But I can't just make myself mad at my opponent for no reason."

Kate describes being taught at a young age how to control emotions on the tennis court.

"What stands out for me? I was always taught not to show anger. Even when I was younger and competing in tournaments, I didn't really show too much emotion. So I was trying to keep it under control and keep it very much within, you know, try to use it as a drive to win, which isn't always easy, because you get so frustrated out on the court sometimes, but you are trying to keep everything within. So at times it's a little more challenging to not get so frustrated and not show it on the court than other times. With some people it can kind of build to the point where it snowballs out of control, and I love playing players like that, because you know you have got them then. I never really let it get to that point for me though where I would lose a match because of it."

Some participants mentioned examples where situations such as cheating or distractions outside of the court were out of their control, which lead to feeling angry.

"It's easy to get angry if they (opponent) has made a bad call, or you can get angry at yourself if you feel like your forehand is off that day, or it's too sunny, or too windy. And after coaching a lot of players I have noticed that

it's hard to control what is happening on the inside. That is the toughest part. I mean, you can only control the controllable. So over time I think I was able to learn to turn those into positives and not worry about the wind, but to utilize the wind. Or if my opponent is cheating me, there is no harm in arguing my opponent but that is the most that you can take. If it carries over into the next point, you are letting it affect your performance, letting it control you…. When I would play in college, it's not like I would lose my temper or show emotions, but I would let little things bother me internally and, therefore, I don't think it would maximize my performance because when I learned how to control those thoughts and emotions, I was able to control the controllable on the court and play much more consistently and play much more of my game." (Adam)

For many, the phrase "spiral out of control" appeared throughout the interviews. For Chris, gaining control over emotions when he was younger was difficult. Now at 43, he can understand how to control his anger by channeling it to another source of focus.

"For me, my old story was (when younger) that I would spiral out of control. I can remember about five or six matches that really stick out in my brain, like I felt like I was more disgruntled to myself. My dad didn't allow me to throw rackets or anything like that but you could see the anguish on my face, and you could see that I would start missing more shots and started to look for excuses more. I would yell: "I can't believe this! or "I suck", you know. I would be freaking out and venting. Like I played Eric one time and it was just

> a battle, you know, and we were just screaming at each other, and it was just…anger. Things weren't going my way, things weren't going his way and we were both angry, just yelling and screaming. But after a while, I recognized really quickly that anger, as a tennis player, destroys you. Anger can just turn into frustration that can turn into a lot of other bad things. And so when I learned how to start controlling it again, I would completely try to tell a different story in my head, like look for a reason why it would work instead of reasons why it wouldn't." (Chris)

For Tony, losing control meant losing physical and emotional control.

> "Anger would make me more intense, but not a good intensity. I would be pumped up and ready to go but I would try to hit the ball as hard as I can, instead of remaining focused, moving quickly, keeping big eyes and choosing the right shot. To get control back I try to take more time between points to shrug off the past and let it go to get back to the game plan."

For John poor performance came from things outside of his control. "Line calls are the biggest thing that frustrates me because they are out of your control." Sam struggles with controlling intensity at times. "When my arousal level is too high I can get super angry and have very high energy. When that happens it can spiral out of control to the point where I can't control myself."

The conclusion that many came to about control was learning how to determine what they had the ability to control and what they did not and then adapting to those circumstances in order to be successful.

Motivation

For Kate, recognizing anger in an opponent was motivation. It became an opportunity for her to attack the opponent during their moment of weakness. This allowed her, many times, to take advantage of the situation and come out successful. "Basically, you know, like reading anger in other tennis players, you can kind of read them and then they can breakdown. And that was kind of a victory in myself to break them down like, okay, I'm able to break them down so I am able to get them so I would use that as a weapon for me to get stronger. So for me, I use that in my matches when I am down and I use that as motivation to keep pushing harder." Following through on taking advantage of opportunities required the ability to focus. The following section describes the role focus plays in relation to anger during competition.

Focus.

For many, focus is key to peak performance. While competing, remaining focused was an important factor in all of the participants' success. Many describe the experience of anger as a distraction from focus. Adam's description of anger and focus encapsulates what many participants experienced in relation to anger.

"When experiencing anger, I would say your thoughts become very cloudy and very random. They start lacking presence versus when you are focused. When you are focused and dialed in, the words going through your thoughts and through your brain are very short and simple. With clouded thoughts you start thinking about other things."

Others in this study also described thoughts as being unclear or irrational while angry, making it harder to make positive decisions.

Balance.

In order to maintain peak performance, many players concluded that balance is key. Participants who struggled with anger discovered that a balance between being too angry, and not being "fired up" enough was a difficult task. Kristin describes what the experience is like trying to keep balance of her emotional state during a match.

> "I am trying to work on also not getting too high or too low either. Trying to find that balance. Because the higher you get the farther you can fall when something doesn't work, and I am constantly trying to keep that balance. And that takes so much energy to try to find that balance out on the court of trying to be a little more consistent. Because I know that as soon as I get high, I am also going to go rock bottom low. So I try not to get too excited about it either and that seems to help."

The balance in this case was not only emotional balance, but an energy balance as well. Chris describes the importance of the physical energy balance below.

> "Where is the balance between fired up and angry?" Sometimes it seems like we need a little bit of that anger to be fired up. Or maybe that isn't anger but just fire in the belly. I'm not sure but it is a difficult balance to find sometimes."

Chapter V: Discussion

"Inside the red zone." This phrase typically refers to the zone in football when the offensive team is in a scoring position within 20 yards of the end zone. For the purpose of this study, it refers to the experience of anger in tennis which some describe as "seeing red mode." This was a direct quote from Sam, however the meaning is shown throughout all ten interviews. The idea of "seeing red" describes that during the experience of anger, it is difficult to see anything else but anger.

The time and commitment that is required of professional and collegiate level athletes to compete at such a high level demands a lot of sacrifice. All of the athlete's in this study have trained and competed in tennis throughout most of their life, making it nearly impossible not to experience emotions, more specifically anger, during that time. The question underlying this study was how the emotion of anger is experienced by competitive tennis players. Many dimensions go into describing the experience of an emotion and these dimensions do not occur independently. Anger is complicated, as all emotions are. Making sense of emotions on an internal level is difficult, making describing them to another person even more difficult.

This study attempted to capture the many dimensions of the experience of anger in tennis players during competition. At this point, only a few studies to date have investigated anger in competitive sport settings from a sport psychology perspective. None, however, have investigated the experience of anger in competitive tennis players. By focusing on the experience of anger in these athletes, the results of this study offer a more comprehensive picture of the elements that occur during these experiences.

This chapter discusses the *Major Findings and New Findings* and *Connections to Previous Research,* offers *Practical Implications* for the findings, suggests *Future Directions* for research and gives *Concluding Remarks.*

Major Findings

The results of in-depth phenomenological interviews with ten competitive tennis players revealed 11 themes, two dimensions, and one major ground from which all dimensions and themes stood. Competition at a professional and collegiate level is something that only a select group of individuals will ever experience. Books and research in sport psychology about anxiety, nerves, and choking seem to be the focus of interest and interventions right now. Yet, looking at anxiety during competition is only one component of the emotional experience of competitive tennis players.

The four major grounds of existential phenomenology are *Time, Body, World, and Others* (Thomas & Pollio, 2002). From those grounds *Time* was present in discussing *Management of Anger* within the context of *Maturity. Body* was present within *Elements of Anger,* and more specifically, *Effects of Anger on Performance. World* was incorporated into the *Elements of Anger* within the context of *Control and Reactions to Anger.* Finally, *Others* were present within the context of *Expectations.*

The most significant finding in the present study was *Maturity,* as it was the ground from which all themes emerged from, as all experiences were discussed as either junior tennis or current/adult level tennis. Ultimately, all of the *Elements of Anger* and *Management of Anger* subthemes overlapped in many ways, but were all referenced in regard to the time in the individual's life that the experience occurred. *Reactions to anger, causes of anger, effects of anger on performance, and*

expectations were ultimately the many dimensions of the individuals' definition of anger. This was a way of describing what anger looks like and feels like to them. All interviews then lead to a description of how the individual manages the anger they experience. Within the descriptions of *Management of Anger* fell *coping skills, control, confidence, motivation,* and *focus.* These themes encompassed the experience of attempting to manage and regulate anger in tennis during competition among all participants.

New Findings and Connections to Previous Research

The current study has new findings not previously discussed in the research. *Maturity* or age has not previously been mentioned within the context of emotion research in tennis. The importance of how anger has affected the success of performance among tennis players should not be dismissed, however, as it was their exploration of defining, identifying with, and the management of anger that seemed to be the most important to these participants throughout the interviews. The dimensions of the emotion stood out in the study from maturity as participants attempted to explain the many components of anger during competition. Interestingly, many participants spoke openly about the feelings they experienced on the court, such as insecurity, fear, panic, and frustration, and seemed "dialed in" as Adam put it, to those emotions throughout the interview process.

A key finding in this study was the importance of the learning process. Many defined their experiences in junior tennis as a loss for what to do, and how to handle emotions like anger out on the court. In many situations, the individuals spoke of strategies that helped them begin to change their perspective. For most of them, this

occurred between the ages of 18 and 22 years old. The findings of this study suggest the importance of starting the learning process of emotional management as early as possible. Teaching juniors that what they experience is not only normal, but also manageable may be a key to begin this shift in perspective that anger is harmful and bad on the tennis court.

The Social Learning and Revised Frustration Aggression theories (Weinberg & Gould, 2010) included the idea of social learning in that we learn how to behave aggressively through modeling the behavior of others. *Growing up* and the *learning process* are both themes that were found in the thematic structure of this study under the major ground, Maturity. Growing up and the learning process describe some of the consequences of feeling angry during competition. The participants in this study found negative results in their performance when they became angry. While growing up some participants struggled with managing their anger, but it was during the learning process where they began to connect negative and positive results in competition with negative and positive emotions they experienced in competition. Once the learning occurred, there was a *change in perspective.*

Mauss and colleagues (2007) found that the emotion regulation strategy of cognitive reappraisal, when used in an anger inducing situation, benefits individuals significantly not only in overall emotional well-being but also in cardiovascular responding, when compared with those who have low appraisal capabilities. The current study provides evidence to support the benefits of cognitive reappraisal within the ground of Maturity and more specifically, *change in perspective.*

Maturity, being the overall ground from which all themes emerged, contains four themes. They are: *change in perspective, acceptance, growing up, and the learning process.* Change in perspective is a form of cognitive appraisal. The participants in this study described changes within their perspective once they had accepted the idea that anger was not a helpful emotion for them in competition. *Acceptance* appeared as a theme in this study within the Maturity context as it was part of that process. Even within the coping skills of those who did not consider themselves to get angry, they described thoughts (cognitions) that were necessary to change their "mental attitude" as described by Kate. By using the idea that anger was not helpful to her performance, she was able to gain leverage over the angry thoughts, and shift her focus from anger to strategy. She found this skill to be essential when playing in order to maintain emotional control. That leverage, along with the change in perspective seemed to be key for many individuals in this study when they described the coping skills involved in the management of anger within their own experiences. According to Cognitive Motivational Relational Theory (CMRT) (Lazarus, 2000) the ability to change thoughts can also change the behavior. This was found to be the case among those who use cognitive reappraisal as a coping strategy for managing anger, providing support for both cognitive reappraisal and CMRT.

As Sam described "seeing red mode" as being a high intensity of anger, he explained that once in that mode it was very difficult to get out, as he could only see anger. Using cognitive reappraisal strategies allowed him to recognize his thoughts, feelings, and actions that occurred before entering that mode which helped him to prevent anger incidents in the future. Sam would normally rush his performance and

hit the ball harder when angry because anger lead to a level of arousal that was too high for him. This provides support for the research done by Woodman and colleagues (2009) about emotions and sport performance. It was found that anger increased physiological response for a "lashing out" task like kicking, but did not improve the accuracy or quality of that task performance. This again supports CMRT where the task must match a specific emotion's action tendency. In this case anger's action tendency is a lashing out motion that Sam experienced physiologically in "seeing red mode."

Another theme that supports CMRT is *motivation.* Motivation was described by one participant, Kate, as being able to notice weaknesses, like anger, in her opponents and being able to use it against them. This motivated her to take advantage of a player who was emotionally vulnerable during the match because their anger became self-destructive. Kate's ability to think about strategy and essentially look outside of her own mind is what allowed her to see opportunities to beat her opponents. Building on those thoughts are what she believes allowed her to ultimately "push through" difficult situations supporting CMRT as she deliberately thought to look for weaknesses. Once the weaknesses were found she was motivated to then take advantage and act on those thoughts and motivations.

Weinberg & Gould (2010) discussed various theories that have been proposed for aggression in sport. The Frustration Aggression Theory proposes that aggression is a direct result of frustration that occurs because of goal blockage or failure. Social Learning theory proposes that aggression is learned through observing others model behaviors followed by reinforcement. Further, the Revised Frustration Aggression

theory somewhat combines these two theories and proposes that frustration increases the likelihood of aggression by increasing arousal, anger, and other thoughts and emotions. It also states that aggression occurs only when socially learned cues signal appropriateness of aggression. In tennis, players are limited by the rules of how they act out aggressively. Players who experience frustration will look for outlets within the rules to release that frustration. Verbal aggression, defined by Hamilton (2012) as "the act of using aggressive language on a target," tends to be a common release of frustration for tennis players in this study. Because tennis players are limited by the rules to which they can act out, the rules and officials that uphold those rules act as the reinforcement of those aggressive behaviors on court. The limitations of behavior in tennis require emotion regulation by the player and the reinforcement of those behaviors is what ultimately holds a tennis player accountable for their behaviors and actions on court. This ultimately translates to the necessity of emotion regulation. Players in this study found emotion regulation to be key to their successful performance, describing it as a balance between knowing which emotions to hold on to and which ones to let go. Balance also appeared as a theme found within this study.

Balance was discussed in regard to the players' ability to determine how much or how little feeling angry was necessary in order to perform at a high level. All participants found this balance in anger to be difficult to achieve with constant adjustments being made throughout the match in order to maintain their level of play. Hanin's (2000) Individual Zone of Optimal Functioning (IZOF) describes that balance by proposing that there is some zone, individual to each person, in which performance will be optimal given the right levels of arousal and emotions. Through

the theme of balance, this study provides evidence to support the IZOF and identifies some of the strategies players use to maintain that balance.

Coping Skills emerged as a theme in this study and was described as an ability to cope with or manage anger effectively out on the tennis court in a way that did not impair performance. Bolgar et al. (2008), identified coping differences in relation to state and trait anger among junior tennis players. Their study found that those who scored higher in anger control also reported greater use of coping responses. Their results suggested that individual differences in anger control allow individuals to perceive a greater number of personal coping resources in response to events perceived as taxing (2008). The present study supports those results and in addition, describes participant's confidence in their ability to cope with anger.

Resource matching is a comparison of demands placed on an individual in a given situation and the personal resources an individual perceives he/she has to attempt to meet those demands (Hanin, 2000). When there is an imbalance in which the individual perceives that the demands of the environment or task exceed the individual's resources, the individual experiences a negative reaction to the stressor (i.e., distress). Not only does resource matching appear within coping skills and confidence, as an ability to meet the demands of emotional coping, it also describes *Expectations*. Expectations emerged as a theme as participants described feelings of fear and worry about what coaches, parents, or they themselves thought about while they were out on the court. Many of those thoughts contained statements about what should be happening, or what a coach would think if they failed. Expectations tie into resource matching as players described their perceptions about whether they should

win a match or not. If they were not sure if they had the ability (resources) to win the match and perceived the expectation to win as too high, it resulted in feeling stress or anxiety, which led to poor performance. Many described the poor performance as a *cause of anger,* also a theme found in this study.

Hangeby and Tenenbaum (2001) found that many causes of anger stem from mistakes made by the player themselves in tennis. The present study found causes of anger to emerge as a theme that provided similar examples. Many players described instances where they were making too many mistakes that triggered them to feel angry, and at times, resulted in either a verbal or behavioral outburst. Other instances for causes of anger stemmed from a lack of control. *Control* also emerged as a theme and was described in an emotional sense. The term "anger spiraling out of control" was used throughout several different interviews that indicated an inability to manage anger in a way that was helpful to them. Most of these instances where players felt a lack of control occurred during junior tennis at a much younger age.

Within the existential ground, *world,* is the theme *reactions to anger*. Reactions to anger vary. As seen in previous studies most reactions are behavioral and can include aggressive behaviors such as racket throwing. Hangeby and Tenenbaum (2001) found the majority of norm-breaking behaviors displayed by junior tennis players to be aggression toward property that indicated the harming of property in some way. In the current study, reactions to anger described physical and performance related issues. The majority of outbursts described by participants in this study were verbal and mainly directed toward themselves and at times, toward an opponent. They also described these outbursts as a result of frustration of not being

able to perform to the best of their ability. Those who struggled in dealing with anger during competition found verbal aggression directed toward themselves, common. As explained by Kristin, a player who has struggled with anger throughout her entire career, "I just start verbally bashing myself when I am angry." Reactions to anger in this study described verbal, physical and performance related issues, all of which inhibited peak performance for the participants in this study.

The theme *reactions to anger* occurred early in the interview where players described their perceptions of anger based upon their own experiences. Much of the research to date discusses anger as either being state anger or trait anger and research has shown that those who score high in levels of trait anger have a predisposition to becoming angry more frequently (Bolgar et al., 2008). This however does not account for individual differences based upon circumstances. Players in this study were not evaluated based on levels of state and trait anger however, all players, found anger to not be helpful in regard to their performance on court. This is important to note as there are individuals who may not score high in trait anger but may go through a period of frequent emotional, even angry, behavioral outbursts or just simply struggle with anger. Those individuals cannot be overlooked as they can also benefit from the strategies, like cognitive reappraisal, to help them manage those emotions in a helpful way. Bolgar and colleagues (2008) found that those with high levels of trait anger are more likely to experience an emotional outburst on the tennis court when compared to those with lower levels of trait anger. Although these findings are important, they are driven under the assumption that anger is automatically a negative emotion with a negative result. Their study included adolescent tennis players, removing the idea of

maturity and growth during this time period may account for more frequent outbursts as the athletes may not have developed the coping skills to deal with anger appropriately yet. The perspectives of those who are older and have struggled with anger throughout their career could be valuable to those who struggle with anger at a younger age as it brings the perspective that this is a common, and normal emotion that does not necessarily have to have a negative impact on performance. Another implication of the present study is for sport psychologists to allow the individual to define anger and attempt to understand what it means to them. The present study can provide that insight and perspective. Another interesting finding in this research supports the idea that analytic thought processing while angry is a difficult task and may be decreased. Players' descriptions of thoughts as being irrational and cloudy while angry indicated a decrease in their ability to analytically process information and thoughts.

Paradoxically, Moons and Mackie's (2007) research about analytic processing while angry found that people may actually process information better while angry as compared to those who were not angry. However, their study involved the use of individuals in everyday settings and not athletes in physically demanding situations. The present study provides evidence of that not being the case. Instead the ability to process information while angry does not increase in this group of participants but significantly decreases as indicated by their quotes about a lack of focus and its effects on the success of their performance.

The majority of previous research on emotion in sport has focused mainly on anxiety. Relaxation techniques, self-talk, and cognitive thought management

techniques are a few of the interventions used in the management of anxiety. Yuri Hanin's work has been the most in-depth research about emotion in sport to date. Describing and defining emotions has been a difficult task for many researchers for decades. Combining the theories of Richard Lazarus (2000) and Yuri Hanin (1999), in more recent years to William James, the first person to question "what is emotion" in 1884, we to this day do not have a concrete definition. It is because of this that we rely on the definitions given to us by the individuals themselves who experience them, and attempt to uncover patterns of similarity among those individuals. Within those blanket operational definitions, individual differences must be accounted for by means of context, and psychobiosocial state (Hanin, 1999). These theories help to explain why an emotion occurs and help predict future behavior, however, they do not gather information through the first person perspective, but rather through a third person research perspective of inventories and questionnaires. The present study provides valuable insight into this first person perspective and extends previous research by describing individuals' experience with anger during competition.

One final important finding from the study to note is the participants' use of the term frustration. Some participants in this study described frustration in opposition to anger. "I get frustrated, not angry" (Jamie). For Jamie, frustration was a feeling that was associated with anger, but was not the same thing. Anger and frustration seemed to fall on a continuum for all of the participants in this study where frustration described a less intense feeling when compared to anger. This supports previous research in that frustration and anger are found to be two separate feelings that are associated but not the same (Weinberg & Gould, 2010). This study extends

that idea providing evidence for anger falling on a continuum that includes a range of feelings, however it is the individual who decides where frustration and anger meet on that continuum.

Overall, this study has found a variety of new findings relating to tennis players' experience of anger during competition that connect to and expand upon the previous research on emotions and anger and their relationship to performance. These findings can be applied throughout the tennis community in order to improve the recognition and management of anger on the tennis court as well in order to help those who may struggle with dealing with this emotion that can be destructive if not managed appropriately. While producing new findings, this study has also confirmed and extended on previous research.

Practical Implications

The results of this study offer several practical implications for sport psychology practitioners, coaches, parents, and trainers who are looking to facilitate learning about emotions in sport and how to deal with them with athletes. The present study suggests that competitive tennis players would benefit from the assistance of sport psychology professionals regarding issues of frustration, anger management, and emotion management and regulation. Coaches can learn to recognize moments of frustration and anger as moments to teach and help athletes cope with channeling their anger to be used in a way that can possibly benefit performance. Some of the participants in the study struggled with confidence, which resulted in anger at times. Many coaches and parents can learn to recognize when a player's confidence is down

which has resulted in anger, and look to prevent that in the future by using confidence building techniques before a behavioral outburst occurs again.

The following list is based on the findings of this study and suggests possible strategies for those who support and teach tennis players. It is important to note that these recommendations are unlikely to dramatically change the thoughts, feelings, or behaviors of an athlete who experiences anger in a negative way, quickly. But they may serve to teach, and improve the quality of the experience of competition in tennis.

Coaches and Sport Psychology professionals can:

- Look for behavioral patterns in situations where the player seems to become most angry.
- Be supportive of all feelings experienced on the court and refrain from labeling them as “right” or “wrong.”
- Keep the expectations realistic by creating goals with the athlete and have them actively take part in creating attainable goals.
- Be patient and understand that when someone is angry, they may not be willing to talk at that time, but be sure to discuss after an incident what can be done in the future to prevent behavioral outbursts.
- Practice confidence-building techniques in those who struggle with anger resulting from lack of confidence.
- Help the athlete shift focus through distraction techniques as a way of taking the emphasis off of feeling angry.
- Understand that maturity takes time and is gained through trial and error. Allowing the athlete to make mistakes without a negative

reaction and then help them learn from those mistakes can ultimately help them to cope with anger when they are on their own out on the court during competition.

Future Directions

The results of this study provide a strong foundation for additional research about anger in tennis. The results regarding tennis players' experiences of anger during competition could be examined in more detail by exploring the perspective of coaches, parents, and referees. While this study focuses mainly on an individual sport, it may also be beneficial to look at the experiences of anger in team sports as well. Future studies may look at a younger age group in tennis to gain an understanding of some of the struggles they face when dealing with anger, especially since the participants in this study described most of their difficulties with anger during junior tennis.

Conclusion

The results of this study suggest that although many tennis players experience of anger during competition is harmful to their performance, through changes in perspective, acceptance of the idea that emotions will occur during competition, and finding a way to channel the emotional energy that anger provides, anger can possibly work to aid performance on the tennis court instead of impair it. The players' comments about the experience of anger during competition provide the unique first person perspective, showing that emotional balance, maturity, focus, coping and confidence all play a role in the experience of one emotion. For those in this study,

their conclusions were similar in the end: “Its ok to have anger, but its about balance, its about what you are going to do with the anger that matters.” (Chris)

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APPENDIX A; Informed Consent:

Approved by Barry University IRB

Date: JUN 2 2011

Signature

Barry University
Informed Consent Form

Your participation in a research project is requested. The title of the study is "Inside the Redzone: An Existential Phenomenological look at the Experience of Anger in Competitive Tennis Players". The research is being conducted by Hilary Cornelius, a student of Sport and Exercise Psychology in the Department of Sport and Exercise Sciences at Barry University, Miami Shores, Florida. The aim of the research is to investigate competitive tennis players' experience of anger during performance.

Should you decide to participate in this study, you will be asked to participate in a post-tournament interview at a time and location of your choosing. The interviews may be conducted in-person or by telephone. During the interview you will be asked to describe in as much detail as possible your experiences of anger in tennis. I may occasionally ask follow-up questions to gain further clarification or to obtain additional details to previous comments. The interview should last approximately 30-60 minutes depending on the depth of your responses. I will audio record the interview and then transcribe it (i.e., type it out on paper) for further analysis. I will then let you look at your transcript to be sure it accurately portrays what you were trying to say in your interview. You may choose to adjust or delete any part of the interview in order to provide a more accurate description of your experience. 6-10 participants are needed depending upon data saturation.

Your consent to be a research participant is strictly voluntary and should you decline to participate or should you choose to drop out at any time during the study, there will be no adverse effects on you. There are no risks to you. Although there are no direct benefits to you, it is hoped that participation in this study will allow you to: (a) increase the depth of your own understanding and add to the field's understanding about the experience of anger in tennis; and (b) explore your own personal experiences in tennis.

As a research participant, information you provide will be held in confidence to the extent permitted by law. Your signed consent form will be kept separate from the data provided in the interview. You will be assigned a pseudonym - a fake name - for this study, which I will substitute for your real name whenever you make comments that might identify you. Any other information which could potential be used to identify you or other competitors will be changed or excluded from the transcripts. This is done to help preserve the confidentiality of your responses. I will only share your interview (not contact details or real name) with members of the research group assisting me in this study. Members of the research group will never have access to any materials that might identify you.

Interview transcripts will be coded and will not contain your name or any other identifying characteristic (such as phone number). Only the investigator will have access to these data. Data will be kept in the investigator's office on a password-protected computer and in a locked filing cabinet indefinitely.

If you have any questions or concerns regarding the study or your participation in the study, you may contact, Hilary Cornelius at (717) 572-4953 , Dr. Lauren Tashman at 305-899-3721, or the Institutional Review Board point of contact, Barbara Cook, at (305) 899-3020. If you are satisfied with the information provided and are willing to participate in this research, please signify your consent by signing this consent form.

Voluntary Consent
I acknowledge that I have been informed of the nature and purposes of this experiment by Hilary Cornelius and that I have read and understand the information presented above, and that I have received a copy of this form for my records. I give my voluntary consent to participate in this experiment.

Signature of Participant	*Date*	*Researcher*	*Date*

Appendix B: Journal Article

INSIDE THE RED ZONE:

AN EXISTENTIAL PHENOMENOLOGICAL LOOK AT THE EXPERIENCE OF ANGER IN COMPETITIVE TENNIS PLAYERS

BY

HILARY CORNELIUS

BARRY UNIVERSITY

Abstract

Despite the vast research that is available about emotions and their effects on sport performance, little is known about the experience of anger during tennis competition. The overall theories about emotion and sport performance look to examine the predictability of behavior during competition however do not give voice to the first person perspective of anger during competition. The purpose of this study examined competitive tennis players' experiences of anger during competition. Qualitative research about emotional experiences during sport competition is limited. This study attempted to address this gap in the research by analyzing ten different interviews from a qualitative existential phenomenological perspective. The ten participants in this study ranged from age 18 to 43 years. All participants in this study have competed in tennis at either a Division I college level or a professional level. During the interviews, each participant was asked, "When you think about your experience with anger in tennis during competition, what stands out for you?" Those interviews were recorded and transcribed verbatim.

Qualitative analysis of the interviews revealed 287 meaning units from the ten interviews, which were grouped in sub-themes and general themes. The final thematic structure revealed 11 major themes, 2 dimensions, and one ground that characterize tennis players' experience of anger in tennis during competition. The major themes were grouped within two dimensions: *Elements of anger*, and *Management of anger*.

Introduction

Anger is a multidimensional emotion that can be defined based upon feelings of frustration, cognitive appraisal (Bolgar, 2008) and physiological responses (Moons & Mackie, 2007) that occur in response to a situational stimulus where feelings and thoughts oppose a threat to the self (Lazarus, 2000). Anger in sports plays a much different role than it does in our everyday interactions. According to Cox (2007), anger is commonly considered a negative emotion, however anger does not necessarily have a negative effect on performance. Abrams (2010) suggested that, in sport, "anger is neither good nor bad, and no judgment need be attached to it" (p. 3).

The terms anger and aggression are often used interchangeably, but are not synonymous. Aggression is a behavioral attribute whereas anger is the experience of an emotion that is unique to each individual (Abrams, 2010). Much of the research in sport has focused on aggression and involved contact sports, such as Ice Hockey and American Football. Contact sports provide opportunities to become physically aggressive toward another person due to the nature of those sports. Non-contact sports are susceptible to negative consequences of anger because the nature of non-contact sports do not allow someone to physically take out their anger on someone else, thus requiring different coping strategies. In any sport, athletes are expected to demonstrate etiquette, composure, and emotion regulation during competition. The experience of anger and its impact on performance may differ greatly in non-contact sports compared to contact sports. For example, in tennis, a set of rules outlines penalties that may be given to an athlete who is unable to effectively manage his/her emotions and exhibits an angry behavioral outburst. These penalties include warnings,

point penalties, game penalties, and ejection from the match. Therefore, the examination of the experience of anger in competitive tennis may provide new insights in order to apply appropriate intervention strategies for sport psychology consultants and their clients.

People experience emotions in very different ways making it difficult to define and understand them (Tenenbaum & Eklund, 2007). Jones (2003) concluded that all emotions contain three elements. All emotions are: (a) associated with physiological change, (b) based upon subjective experiences, and (c) expressed through action tendencies. He also found that anger is associated with high levels of physiological arousal. As anger increases, cognitive processing speed, fine motor coordination, and sensitivity to pain decrease. At the same time, heart rate, cardiovascular output, and muscular strength increase. For some athletes, tasks, and sports, this physiological response to anger can be facilitative to performance; for others, it will likely interfere with performance (Abrams, 2010).

Appraisal of an experience combines the athlete's subjective view, based on previous experience and confidence in his/her ability to cope with emotional experiences during competition (Jones, 2003). The emotional experiences are subjective in that they are unique to the individual. Some theorists argue that emotional responses do not require cognitive processing (Jones, 2003). Richard Lazarus' cognitive motivational relational theory (CMRT) shows that a cognitive process is required during emotional processing as the stimulus must be perceived (i.e., appraised) in a way unique to the individual in order for an emotion to occur. This does not account for someone being unaware as to why they react to a stimulus

emotionally, as that may be linked to appraisal that occurs subconsciously (Jones, 2003). CMRT in sport applies as a way of identifying what is important to the individual athlete. According to CMRT, the underlying core relational theme for anger is "a demeaning offense against me and mine" (Lazarus, 2000, p.242). Essentially, a threat to the ego is what drives anger to be felt, and sometimes acted upon. In tennis this may look like someone being cheated by the opponent calling a ball out that was in. As a tennis player, a significant amount of effort is put into every point. The opponent cheating you takes away from or devalues the effort of hard work into a point that deserves a fair chance. Not having a fair chance can become personal and a threat to the individual themselves as it places a barrier between their current situation and the goal of ultimately striving to win each point. Anger, however, is experienced in many different ways. Depending on the type of skills required for a task, personality characteristics of individual athletes, and level of expertise, athletes will exhibit varied emotional reactions in competition settings. Therefore, subjectivity must be addressed in research about emotional experiences in order to understand the meaning behind the experience of anger in competitive tennis matches.

Action tendencies, or behaviors, are displayed on the tennis court during competition. These behaviors, with regards to the experience of anger in competitive tennis, can be verbal (e.g., yelling) or non-verbal (e.g., physically throwing a racket). As mentioned previously, penalties may be given in tennis for those outbursts by a tournament referee or umpire. In order to understand how to effectively prevent and cope with angry behavioral outbursts, one must understand the foundational theories that underlie the emotional processing of anger (Hanin, 2000).

In an effort to understand emotions and performance, Yuri Hanin (2000) developed the Individual Zone of Optimal Functioning (IZOF) theory to account for individual differences among athletes. In order to better understand emotions, we need to understand the dynamics of the emotional experience, and ideally examine the context in which the behavior, performance, or emotion occurred. This is also known as situational anger. We must also identify the experience before, during and after performance. Similar to the IZOF, this study looks at individual difference however, by means of phenomenological interviews, and attempts to find common patterns among the interviews that best describe the many dimensions of anger during competition. Verbatim interview transcripts and quotes help to describe the many dimensions of those experiences.

Previous research conducted by Hanin (2000) used self-reporting scales to measure and understand anger and emotions. While, these scales are helpful in categorizing types of anger, they are unable to capture the emotional experience that the athlete internalizes and carries with them throughout competition. Thus, quantitative methods are inadequate when studying a human emotional phenomenon (i.e., anger) because the scientific view can be too restrictive when explaining subjective experiences (Dale, 1996). Understanding the experience of anger from the athlete's perspective is a crucial prerequisite for applying psychological interventions. In order for research to be useful, it needs to be applicable. In the field of Sport Psychology, theories and research must be able to be applied to those who are practicing. Interviewing currently competitive tennis players addresses the applied aspects of the previously mentioned theories.

Reading and listening to the voices of the actual athletes provides insight that bridges the gap between research and application. It is the hope of the researcher that by allowing these athletes to voice their personal experiences, this can lead to possible interventions that can benefit competitive tennis players in the future who may struggle with similar experiences.

Qualitative research about emotional experiences during sport competition is limited. This study involved the use of in-depth phenomenological interviews to examine and understand athletes' individual, subjective experiences of anger during competitive tennis matches. Anger is a normal emotion that all athletes experience at some point during competition. The lack of research about the experience of anger limits our understanding about its affects on performance. Examination of the anger experience will provide information that may lead to proper applications of interventions that are helpful in order to facilitate optimal performance in athletes, and in this study, specifically competitive tennis players.

Methods

This study was designed to examine competitive tennis players' experiences of anger during competitive matches. More specifically, phenomenological interviews were conducted with collegiate and professional tennis players to examine their experience with this emotion in depth. This study asked participants, "When you think about your experience of anger in tennis, what stands out for you?" in an effort to gain insight into personal experiences that can lead to the development of intervention strategies for anger coping skills and management.

Participants

The participants in this study were competitive tennis players over the age of eighteen who have an individual ranking at a regional, national, and/or international level. The number of participants was dependent upon the saturation of data that was collected from the interviews. Saturation of data is based on the re-occurrence of common themes among the separate interviews. The number of participants depended on the repeated themes found in each interview. There were ten participants in this study.

Instrumentation

The instrument chosen to describe the experience of anger was the phenomenological interview taken from an existential perspective. In order to understand existential phenomenology one must abandon the belief that there is only one way of knowing (Dale, 1996). When studying a human emotional phenomenon (i.e., anger), the traditional scientific view can be restrictive. Existential phenomenology lends itself well to researching an experience because the process allows the researcher to be able to accurately describe and understand the experiences of those being interviewed. The phenomenological interview provides a model that allows an experience to be described in full detail in the first-person. Dale (1996) stated, "the two (athlete and world) cannot exist apart from each other and each individual and his or her world are said to co-constitute one another" (p. 309). Essentially the research cannot accurately talk about the athlete's experiences without talking about his or her world. "As researchers in the field of sport psychology, we can learn a great deal about the experiences of athletes if we allow them the

opportunity to tell us via interviews where they are free to describe their experiences" (Dale, p. 309).

Procedures

The procedures in this study were based on Thomas and Pollios' (2002) recommendations for conducting existential phenomenological research. This includes the processes of exploring researcher bias, selection of co-participants, and data collection.

Exploring Researcher Bias.

Researcher bias was identified through bracketing. This process involved the researcher being interviewed by an individual with qualitative research experience in order to identify any personal perceptions or biases regarding the experience of anger during competitive tennis matches. The researcher was asked questions about why she was interested in conducting research about the experience of anger during competitive tennis matches as well as subsequent questions that the interviewer deems necessary for gaining insight into personal bias and perceptions.

Data Collection.

Interviews were recorded on an RCA digital voice recorder and transcribed verbatim. Each participant was asked to choose an alias so as not to be identified by name to ensure confidentiality. All consent forms containing the names of the participants were kept in a locked filing cabinet drawer after the interview was conducted. The participant was referred to by their alias from that point forward. The phenomenological interview was unstructured and began with an open-ended question. The question for this study was: "When you think about your experience of

anger in tennis, what stands out for you?" The participant was considered the expert and determined the course of the discussion. The researcher did not intentionally lead the process by asking probing questions. The role of the researcher in this type of interview was to ask for expansion and clarification about the experience. The participant determined the length of the interview.

Design and Analysis

The qualitative data from the interviews was analyzed according to Thomas and Pollios' (2002) guidelines. After the interview, the participant was asked if there were any questions. A copy of the consent form was given to the participant, which included the contact information of the researcher. All interviews were transcribed verbatim. Once transcribed, the recorded interview was deleted immediately from the RCA digital voice recorder.

A research group was selected to read and review the transcribed interviews to help identify a thematic structure. This group was selected based upon their experience and knowledge about qualitative research in general and the process of analyzing phenomenological interviews specifically. This group gave their recommendations on the meaning units and the thematic structure of the analysis. The researcher read and reviewed all transcriptions and took these recommendations of the group into consideration to develop the final version of meaning units and thematic structure (Creswell, 2007).

The thematic structure included the meaning units, the sub-themes associated with the meaning units, and the evidence supporting the relationship of the meaning units and sub-themes. Once the thematic structure was outlined, the researcher then

integrated the results into an in-depth, exhaustive description of the phenomenon. Once the descriptions and themes were obtained, the researcher approached the participant a second time to validate the findings. When findings were validated and confirmed by the participant, the researcher made changes, if necessary, as described by the participant, and finally discussed the findings of the phenomenon (Creswell, 2007).

Results

Participants

The final sample of participants consisted of five male, and five female competitive tennis players. Their ages ranged from 18 to 43 years old. This sample included competitive professional, and collegiate level players from Europe, the United States, and Australia. A description of the participants along with the pseudonym used for each player is shown in Table 1.

Communication and Perception

In an effort to describe the experience of anger in competitive tennis matches accurately, communication between the researcher and participant had to be assured. Because this is an existential phenomenological study, the communication during the interview must be obtained with the spoken word. The spoken word provides the individual's point of view with the most accurate meaning. Phenomenological inquiry necessitates drawing meaning from what was said as well as how it was said. In order to derive meaning from the spoken word, the individual described his or her own perspective driven by their understanding of their own reality. The spoken word conveys meaning, which may not be available through written communication (Primozic, 2001, p. 69).

The perception of the experience is important for phenomenologists to capture during the interview and analysis process. According to Thomas (2005) “it is perception that opens us to reality, providing a direct experience of the events, objects, and phenomena of the world” (p. 69). Sports are a highly physical experience with most emphasis placed on technique, fitness, and athletic abilities. In contrast, the current research process allowed participants to share their personal experiences about an emotional state that is also experienced on the tennis court, but is not typically emphasized in as great of detail when compared to the physical components of the experience of competitive tennis.

Table 1

Descriptions of participants

Pseudonym	Age	Country of origin	Highest level of play	Gender	Interview time in minutes
Kristin	24	Scotland	Professional	Female	61:00
Jamie	18	USA	Professional	Female	27:02
Chris	43	USA	Professional	Male	27:00
Kate	30	USA	Professional	Female	19:06
Adam	28	USA	Professional	Male	34:29
John	22	Australia	Professional	Male	22:11
Sam	25	Australia	Professional	Male	23:40
Tony	20	USA	Collegiate	Male	19:01

Jennifer	24	Czech Republic	Collegiate	Female	21:16
Lynn	23	Switzerland	Professional	Female	17:45
(N=10)	(M=25.5)				(M=27.08)

The Thematic Structure

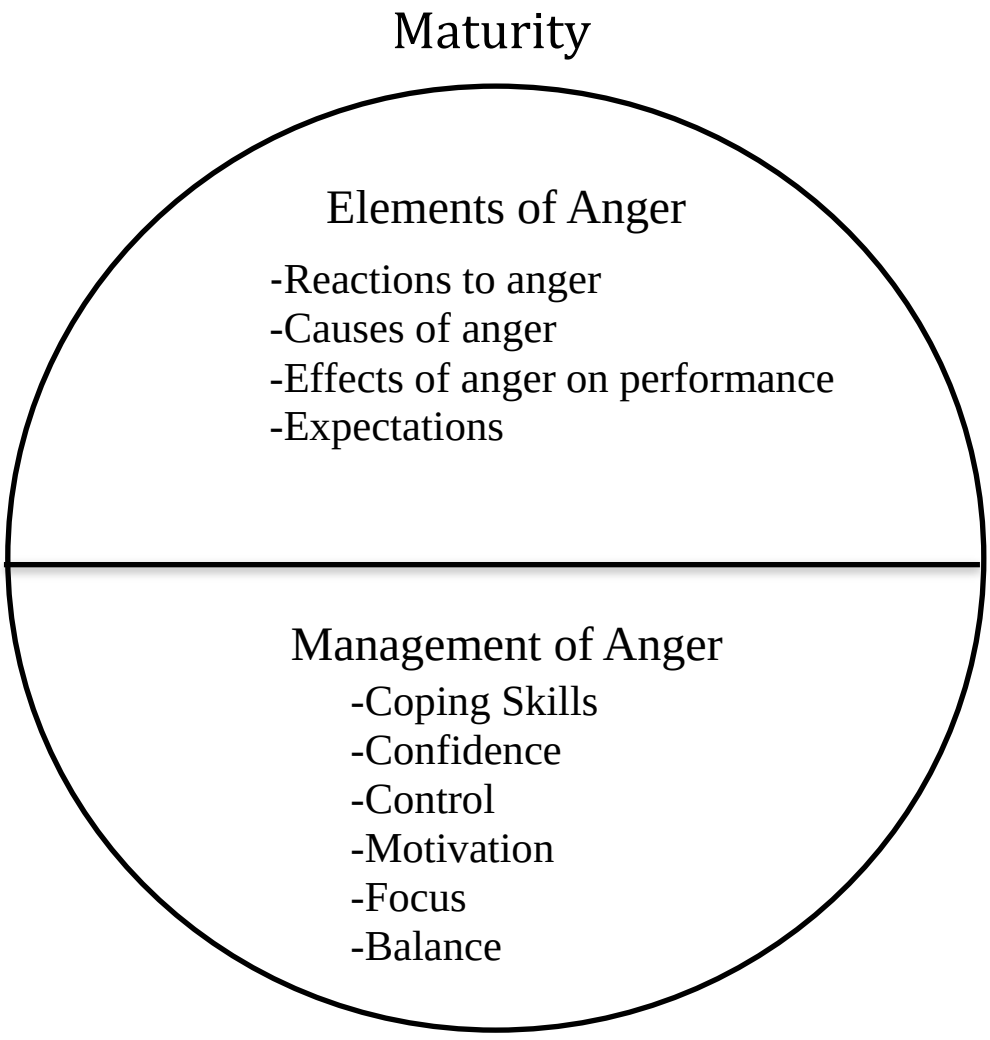
From ten verbatim transcripts, 287 significant statements (meaning units) were extracted. Those statements were further grouped into sub-themes and general themes. In total two major themes were revealed from the transcripts and ten sub-themes within the major themes were found.

The Thematic Structure

From ten verbatim transcripts, 287 significant statements (meaning units) were extracted. Those statements were further grouped into sub-themes and general themes. A visual depiction of the thematic structure can be found in *figure 4*. The major ground from which all themes emerged was **Maturity**. Within maturity were four themes: *change in perspective, acceptance, growing up, and the learning process.* Two dimensions stemming from that ground were also identified: **Elements of anger** and **Management of anger**. Themes that fell within Elements of anger were: *reactions to anger, causes of anger, effects of anger on performance, and expectations.* Themes that fell within the dimension of Management of anger were: *coping skills, confidence, control, motivation, focus, and balance.* In total 11 themes were identified.

Figure 4.

Organization of thematic structures



According to Thomas & Pollio (2002), existential phenomenologists use four major grounds of existence to gain a full understanding of the participant's perspective. Those grounds are: *World, Body, Time, or Others.* Experiences that "stick out" in a person's memory do so because the stand out from one or more of those grounds. Therefore, existential phenomenologists must take into account the context in which the experience has occurred, as one cannot occur without the other.

It is important to note the sub-themes fall into one of two themes of the interview process. Taking the lead of each participant during the interview, each theme fell into a trend of two categories. First, **Elements of Anger** included definitions, explanations, and feelings about anger. Those meaning units then lead to a second dimension of the interview that fell under the category: **Management of Anger**. These two dimensions are discussed separately because each interview followed similar patterns. These separate parts of the experience of anger in competition are what make up the whole and emphasize the many parts, or multidimensionality, of the experience. Interestingly, all participants followed a similar narrative.

Maturity. Maturity is the major ground to which all dimensions and themes stand out. To many tennis players, maturity may seem a bit obvious to be listed as a subtheme, however the subject of maturity appeared in many contexts throughout the interviews and for everyone, was a common overall dimension in the experience of anger. Maturity, therefore has been divided into four separate categories: *Change in perspective, acceptance, growing up,* and *the learning process.* Simply describing *Maturity* in a general context did not fully describe the entirety of the process or experience of the management of anger for these participants.

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Changes in perspective indicated recognition of a time where cognitions and behaviors began to change in their performance on the tennis court. A change in perspective occurred as part of the process of maturity for the participants in this study. Obviously, the older the participant, the more insight they seemed to have about the subject of maturity as they were able to see changes throughout their career and were consciously aware of when those changes occurred. Some of them realized that they are still in that process, others viewed the management of anger as something they are still challenged by, but were able to keep it under control due to previous experiences. Sam discusses when he began to see this shift in perspective. "In college I didn't realize how much it was actually hurting me to get angry on the court."

Coming from an older participant, the discussion was more about the change in perspective that had already been made, and how that changed the way he views tennis and competition now.

"Yea, you know, you get a little older, and a little bit more mature and you realize, I think you kind of put it into perspective too. You know, its like, you get older and a little bit more mature and you realize…tennis isn't everything. Even if you are playing at a high competitive level, you know, if I'm playing for a national championship, which is a pretty big deal in my world, it's still just tennis. And, really getting that grasp and I think when you are growing up, you literally feel like it's your

whole world, and then you relate losing to failure, and I think that is where the switch happened for me." (Chris)

Acceptance that anger occurs out on the court was a natural conclusion that each participant came to in each interview. In some cases, admitting that anger was a problem and accepting it as an emotion that is going to occur was half of the battle. Fighting the anger on court seemed to be counterproductive for most.

Each participant had his or her own story about *growing up* and described what dealing with anger was like during junior tennis. Some described their actions in juniors as irrational.

"I can remember very, very irrational behavior against a woman that I could never beat. She was one of the top players in my region growing up and we had to play each other in a semi-final, and I thought we should have met in the final. Anyway, my coach had set up a camera in the corner and I aimed the entire match for the camera trying to hit it and knock it down, and I think it has to do with the fact that as a junior I didn't want to be seen as messing up or losing. I can remember that match so well. I was very irrational back in the day and I didn't really process things, but that got better with just understanding my game more and just growing up." (Kristin)

Learning to deal with adversity, emotions, and physical limitations in tennis, as in anything, is a long process that is based upon experience. Learning from experiences that make one angry can be particularly difficult as when someone is angry, the reaction is not normally to sit down and talk about the feelings but to act out emotionally in some way. The idea is that some type of release of the pent up frustration can help them to let go of that anger. The participants in this study

emphasized the difficulty of trying to control anger during the moment it occurs as it is, at times, an internal battle. It takes a great deal of emotional maturity to be able to recognize that anger is not helpful in that moment and change focus to not let it get the best of the players ability to perform at their best. Finding out what works best to let anger go and move on is based solely on the individual, and even that can change from match to match. Many have found success in cognitive strategies that prevent anger from escalating.

Reactions to anger. The tennis players in this study indicated that the initial reaction to anger was negative, or not helpful to their performance on the court. This sub-theme, *reactions to anger*, not only gives examples of initial verbal reactions to anger, but also how participants behaviorally reacted to anger. They expressed varied levels of anger ranging from hatred to frustration to annoyance. Each of these feelings were seen as obstacles they faced during matches which made it more difficult to compete to the best of their abilities. As one player who has struggled with anger throughout her career explains:

"When I think of anger, I think of, not just the times or events where I have lost my temper, which obviously happened a lot more in the juniors and still happens a lot more often than it should now, but I think of the times I've been approached about my anger. Its not so much about how I have been acting on the court, but the first thing that pops into my head is that when people tell me "oh you have to fix your anger" or "you have to get control of your anger" or "you can't be so self-destructive." Like all of the kind of people that get on my back is what I think of. I think of my anger, especially in juniors, and how it held me back like it can still do sometimes.

And I think I am getting a lot better which is mainly why I am becoming more successful. But I think it hinders me more so than times I have not been angry." (Kristin)

The quote above describes one of many reactions about the experience of anger during competition. Early in the interview process, after participants were asked the initial question of: "when you think about your experience of anger on the tennis court, what stands out for you," many participants described behavioral reactions that occurred as a reaction to the anger or frustration they experienced on court. These behavioral descriptions consisted mainly of examples of throwing rackets, yelling at opponents, referees, or coaches, hitting themselves with a racket or slapping themselves.

Causes of anger. While reactions to anger and causes of anger were similar, they were not listed in the same sub-theme category due to their context. After discussing their initial thoughts about anger in the interview the following are some examples of what these participants feel are the causes of anger. Some mentioned personality characteristics and not being understood while others mentioned specifics about the way they were coached and brought up being taught how to handle emotion. Below, Kristin explains what she believes causes her anger on the tennis court.

"A lot of people have said, you know, it's because you are insecure on the court, that it is your way of trying to take the focus away from that. I know throughout juniors, definitely what other people would see was like, if I was down against someone I should be beating and I knew I was better than I would just be angry and a lot of people on the outside would see that. But deep down I look back

and see it now as panic like “oh no, I’m losing!” and people would see me basically just shut down or tank back in the day. I look back now and see it as the outsiders have one perspective and the player another. The outsiders like coaches and parents see shutting down and tanking, but the player’s side is they want to be angry because it is how they feel, and no one understands them because they are not in their position, so for me anger, when I was younger came from an insecurity and lack of confidence kind of thing.”

Effects of anger on performance. The next element of anger describes the effects of anger on performance. Each participant included a reference about how anger affected their performance on the court. For the participants in this study, the general trend was that anger had a negative impact upon performance. All participants said at one point throughout the interview that anger is not a helpful emotion during competition. The participant with the most experience describes below the effects of anger on his performance on the court.

“When I was younger, my father instilled in me a big will to win. And from that will to win, you know, things didn’t always go your way. And when things were not going my way, I remember a lot of times I would struggle with anger because I wasn’t sure how to channel it. I can remember times being on the court where I was just so frustrated and not know what to do with it, and I remember losing matches, several matches because of it. I would all of a sudden get fired up and wouldn’t be playing well that day and I would just get choky, you know, lose the whole match because of anger.” (Chris)

"When I am in seeing red mode, I start rushing everything. You try to hit balls as hard as you can but that doesn't really help because you just miss more. My game just deteriorates when I get angry on the court and I stop thinking logically. I remember one time where I lost 5 or 6 matches in a row where I had match points, and I just had a meltdown. After that it was hard to recover because I would almost be sulking out on the court and feel sorry for myself and then just rollover, feeling defeated instead of fighting harder." (Sam)

Many players described a feeling of being at a loss for what to do or how to handle their anger when they were younger. This lead to a feeling of defeat, not only by their opponent, but also by being defeated by themselves on the court. This contributed to a cycle of feeling angry not only in the current match, but also future matches.

Expectations. "I should be winning," "I should be able to play better than this," "what will my coach/parents think?" "You have so much talent but still lose." Statements like this were common among participants when talking about their experiences of anger as they would describe getting angry and then would explain why they would get angry. Many of those explanations were similar to the statements above as their expectations for how they should play, compared to the reality of how they were playing did not match, which, in some cases, led to feeling angry or even a behavioral outburst like throwing a racket or yelling. The expectations of coaches, parents, or even the athlete themselves seemed to be a source of frustration for many of the players in this study, specifically when they could not meet those expectations. As Adam recalls:

"When I am not playing well, some of the thoughts that might go through my head during a match that I should be winning are like: I should be beating this guy; this is embarrassing; what is my coach going to think; are they going to be upset with me?; what's wrong with him…etc., that kind of stuff." (Adam).

Control. For each participant, control was mentioned in relation to anger. The nature of the relationship between anger and control was discussed under different contexts. For example: anger spiraling out of control; becoming angry because they could not control the situation, opponent cheating, learning to control only the controllable, and staying in the moment to maintain emotional control. Tennis, like most sports, requires the ability to control the physical and mental aspects of the game. Therefore, it was not a surprise when the word "control" appeared in the majority of the interviews. Many described this control as an internal experience when discussing emotions and found it to ultimately be harmful to their performance. Kate describes control: "What stands out for me? I was always taught not to show anger. Even when I was younger and competing in tournaments, I didn't really show too much emotion. So I was trying to keep it under control and keep it very much within, you know, try to use it as a drive to win, which isn't always easy, because you get so frustrated out on the court sometimes, but you are trying to keep everything within".

For many, the phrase "spiral out of control" appeared throughout the interviews. For Chris, gaining control over emotions when he was younger was difficult. Now at 43, he can understand how to control his anger by channeling it to another source of focus.

"For me, my old story was (when younger) that I would spiral out of control. I can remember about five or six matches that really stick out in my brain, like I felt like I was more disgruntled to myself. My dad didn't allow me to throw rackets or anything like that but you could see the anguish on my face, and you could see that I would start missing more shots and started to look for excuses more. I would yell: "I can't believe this! or "I suck", you know. I would be freaking out and venting. Like I played Eric one time and it was just a battle, you know, and we were just screaming at each other, and it was just…anger. Things weren't going my way, things weren't going his way and we were both angry, just yelling and screaming. But after a while, I recognized really quickly that anger, as a tennis player, destroys you. Anger can just turn into frustration that can turn into a lot of other bad things. And so when I learned how to start controlling it again, I would completely try to tell a different story in my head, like look for a reason why it would work instead of reasons why it wouldn't."

Theme 2: Management of Anger

In the next group of sub-themes, the conversation shifted from what anger means to how it is managed. This theme consisted of the following subthemes: maturity, coping skills, confidence, motivation, focus, and balance.

Coping Skills. As an extension of the maturation process coping skills are the skills that one learns over time in order to deal with the anger and frustration that occurs on the court effectively.

Confidence. Having coping skills, for many participants, seemed to build their confidence in their ability to deal with emotions on court. When this occurred, a

positive increase in their performance was described. The following is a quote that best summarizes this experience.

Adam stated in response to a follow up question about confidence: (when confident) “I don’t experience many thoughts at all. It is just more relaxed overall. You are able to recognize things that your opponents are doing. Being more relaxed allows me to swing out more on my shots, allowing me to be more aggressive without losing control of my shots. When you are confident versus not confidant, the biggest difference is when you step up to hit the shot. With confidence, you pick the spot, you hit the spot. And when you are not confident, you pick the spot, and you hope that it goes in. So you become fearful and your body becomes tense and your muscles become tight, and that prevents you from doing what you wanted to do.”

Motivation. For Kate, recognizing anger in an opponent was motivation. It became an opportunity for her to attack the opponent during their moment of weakness. This allowed her, many times, to take advantage of the situation and come out successful. “Basically, you know, like reading anger in other tennis players, you can kind of read them and then they can breakdown. And that was kind of a victory in myself to break them down like, okay, I’m able to break them down so I am able to get them so I would use that as a weapon for me to get stronger.

Focus. For many, focus is key to peak performance. While competing, remaining focused was an important factor in all of the participants’ success. Many describe the experience of anger as a distraction from focus. Adam’s description of anger and focus encapsulates what many participants experienced in relation to anger.

"When experiencing anger, I would say your thoughts become very cloudy and very random. They start lacking presence versus when you are focused. When you are focused and dialed in, the words going through your thoughts and through your brain are very short and simple. With clouded thoughts you start thinking about other things."

Others in this study also described thoughts as being unclear or irrational while angry, making it harder to make positive decisions.

Balance. In order to maintain peak performance, many players concluded that balance is key. Participants who struggled with anger discovered that a balance between being too angry, and not being "fired up" enough was a difficult task. Kristin describes what the experience is like trying to keep balance of her emotional state during a match.

"I am trying to work on also not getting too high or too low either. Trying to find that balance. Because the higher you get the farther you can fall when something doesn't work, and I am constantly trying to keep that balance. And that takes so much energy to try to find that balance out on the court of trying to be a little more consistent. Because I know that as soon as I get high, I am also going to go rock bottom low. So I try not to get too excited about it either and that seems to help."

The balance in this case was not only emotional balance, but an energy balance as well. Chris describes the importance of the physical energy balance below. "Where is the balance between fired up and angry?" Sometimes it seems like we need a little bit of that anger to be fired up. Or maybe that isn't anger but just fire in the belly. I'm not sure but it is a difficult balance to find sometimes."

Discussion

"Inside the red zone." This phrase typically refers to the zone in football when the offensive team is in a scoring position within 20 yards of the end zone. For the purpose of this study, it refers to the experience of anger in tennis which some describe as "seeing red mode." This was a direct quote from Sam, however the meaning is shown throughout all ten interviews. The idea of "seeing red" describes that during the experience of anger, it is difficult to see anything else but anger.

Major Findings

The results of in-depth phenomenological interviews with ten competitive tennis players revealed two major themes that give dimension to their experience of anger during competition in tennis: *Elements of Anger, and Management of Anger.* A description is shown in Table 2 of the thematic structure of the dimensions of anger. Competition at a professional and collegiate level is something that only a select group of individuals will ever experience. Books and research in sport psychology about anxiety, nerves, and choking seem to be the focus of interest and interventions right now. Yet, looking at anxiety during competition is only one component of the emotional experience of competitive tennis players.

The most significant finding in the present study was *Maturity,* as it was the ground of which all themes emerged from, as all experiences were discussed as either junior tennis or current/adult level tennis. Ultimately, all of the *Elements of Anger* and *Management of Anger* subthemes overlapped in many ways, but were all referenced in regard to the time in the individual's life that the experience occurred. *Reactions to anger, causes of anger, effects of anger on performance, expectations,* and *control*

were ultimately the many dimensions of the individuals definition of anger. This was a way of describing what anger looks like and feels like to them. All interviews then lead to a description of how the individual manages the anger they experience. Within the descriptions of *Management of Anger* fell *maturity (including changes in perspective, acceptance, growing up,* and *the learning process)* followed by, *coping skills, confidence, motivation,* and *focus.* All of these are dynamic emotions that encompassed the experience of anger in tennis during competition in its entirety among all participants.

Relaxation techniques, self-talk, and cognitive thought management techniques are a few of the interventions used in the management of anxiety. Yuri Hanin's work has been the most in-depth research about emotion in sport to date. Describing and defining emotions has been a difficult task for many researchers for decades. Combining the theories of Richard Lazarus (2000) and Yuri Hanin (1999), in more recent years to William James, the first person to question "what is emotion" in 1884, we to this day do not have a concrete definition. It is because of this that we rely on the definitions given to us by the individuals themselves who experience them, and attempt to uncover patterns of similarity among those individuals. Within those blanket operational definitions, individual differences must be accounted for by means of context, and psychobiosocial state (Hanin, 1999).

The following list is based on the findings of this study and suggests possible strategies for those who support and teach tennis players. It is important to note that these recommendations are unlikely to dramatically change the thoughts, feelings, or

behaviors of an athlete who experiences anger in a negative way, quickly. But they may serve to teach, and improve the quality of the experience of competition in tennis.

Coaches and Sport Psychology professionals can:

- Look for behavioral patterns in situations where the player seems to become most angry.
- Be supportive of all feelings experienced on the court and refrain from labeling them as “right” or “wrong.”
- Keep the expectations realistic by creating goals with the athlete and have them actively take part in creating attainable goals.
- Be patient and understand that when someone is angry, they may not be willing to talk at that time, but be sure to discuss after an incident what can be done in the future to prevent behavioral outbursts.
- Practice confidence-building techniques in those who struggle with anger resulting from lack of confidence.
- Help the athlete shift focus through distraction techniques as a way of taking the emphasis off of feeling angry.
- Understand that maturity takes time and is gained through trial and error. Allowing the athlete to make mistakes without a negative reaction and then help them learn from those mistakes can ultimately help them to cope with anger when they are on their own out on the court during competition.

The results of this study suggest that although many tennis players experience of anger during competition is harmful to their performance, through changes in

perspective, acceptance of the idea that emotions will occur during competition, and finding a way to channel the emotional energy that anger provides, anger can possibly work to aid performance on the tennis court instead of impair it. The players' comments about the experience of anger during competition provide the unique first person perspective, showing that emotional balance, maturity, focus, coping and confidence all play a role in the management of one emotion. For those in this study, their conclusions were similar in the end: "Its ok to have anger, but its about balance, its about what you are going to do with the anger that matters." (Chris)

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