Oxford Handbooks Online

The Psychology of Coaching

Daniel Gould and E. Missy Wright

The Oxford Handbook of Sport and Performance Psychology
Edited by Shane M. Murphy

Print Publication Date: Aug 2012
Online Publication Date: Nov 2012

Subject: Psychology, Health Psychology, Organizational Psychology
DOI: 10.1093/oxfordhb/9780199731763.013.0018

Abstract and Keywords

The psychology of coaching can be viewed as the scientific study and application of the practice of supporting individuals in achieving specific personal and organizational performance goals, as well as the achievement of nonperformance personal development. Once only associated with sport, coaching psychology is used today to assist individuals of all ages in a wide variety of environments (e.g., military, business, schools). Although the practice of coaching has expanded greatly, research and theory in the area lags. To help rectify this situation, this chapter summarizes the psychology of coaching research, identifies gaps in its knowledge base, and outlines future research directions. This is accomplished first by looking at the traditional context of sport, then expanding to other nonsport areas where coaching is being applied. It is concluded that instead of conducting research in isolated domain-specific silos, researchers should integrate research knowledge across areas.

Keywords: Coaching, psychology of coaching, high performance

Sport psychologists have been long been interested in the psychology of coaching. In outlining the purposes of this field, for example, Coleman Griffith (1925), the father of modern sport psychology in North America, indicated that one of the roles of the sport psychologist was to observe the best coaches, record the principles that they employ, and pass those principles on to less experienced coaches. Griffith (1932) also felt that sport psychologists had an obligation to use the scientific method to inform coaching practice. He did this in writing the *Psychology of Coaching*, one of the first books of its kind.

The psychological aspects of coaching have continued to be of interest to sport psychologists and practitioners alike. Numerous books have been written on the topic and literally hundreds of studies have been conducted. In a comprehensive review of the coaching science literature conducted in 2004 (in which many of the studies focused on psychological questions), Gilbert and Trudel (2004) identified over 1,100 studies in the area. More recently, sport psychologists have taken what has been known about coaching in the sport context and applied that knowledge to business (Gordon, 2007; Jones, 2002; Murphy, 1996; Loehr & Schwartz, 2001). Accompanying the growth of the positive psychology movement around the world, psychologists at large (e.g., Linley & Harrington, 2005; Palmer, 2005) have taken the metaphor of sport coaching and applied it to other areas of human function (e.g., life coaching, business) under the umbrella of the psychology of coaching (see also Chapter 37, this volume).

However, the sport psychology research literature has not necessarily been used or even recognized in this new "coaching" area. In fact, over the last decade, there has been considerable movement to study coaching in business and general life contexts, which has led to the initiation of new journals like (p. 344) *The Coaching Psychologist* in 2005 and *Coaching: An International Journal of Theory, Research and Practice* in 2008.

Given the interest in the psychological aspects of coaching both historically in the field of sport psychology and

more recently across disciplines, a need exists to summarize the psychology of coaching research, identify gaps in our knowledge, and outline future research directions. To achieve these purposes, we begin by defining the psychology of coaching. We then review and synthesize the knowledge base on the psychology of coaching, first looking at the traditional context of sport, then expanding to newer areas in which coaching is applied (e.g. business, fitness/health promotion). We conclude by identifying future research directions.

Defining Coaching and the Psychology of Coaching

The derivation of the word *coaching* can be traced to the Hungarian term *koczi* (Hendrickson, 1987, as cited in Stern, 2004). In Hungarian, *koczi* described a carriage that was built to carry passengers over difficult terrain, all the while protecting them from the elements during their journey. The process of guiding and protecting during a journey was applied, metaphorically, to other fields, and today coaching is commonly defined as "the practice of supporting an individual … through the process of achieving a specific personal or professional result" (Coaching, n.d.). Given that sport psychology is defined as the scientific study of human behavior in sport and exercise settings and the application of that knowledge (Weinberg & Gould, 2011), coaching psychology can be viewed as the scientific study and application of this practice of supporting individual athletes and exercisers in achieving specific personal and/or team goals in the sport and in a broader context. Palmer and Whybrow (2005) define it as "a domain of practice for psychologists concerned with the integration of psychological theory and research for promoting individual well-being and performance, as well as group and organizational performance (as adapted from Grant & Palmer, 2002)" (pp. 7–8).

Recently, Grant, Passmore, Cavanagh, and Parker (2010) discussed the utility of thinking about three categories of performance coaching: skills coaching, performance coaching, and developmental coaching. Skills coaching focuses on developing specific skills that a client may need (e.g., the ability to present, negotiate) via instruction, often through modeling and by providing feedback. Performance coaching focuses on the process a client employs to solve some specific workplace problem, often resulting from a performance review. It is often time focused (e.g., improve performance over the next 6 months), with the coach helping the client learn to more effectively set goals and deal with challenges he or she may encounter in achieving specific performance objectives. Finally, developmental coaching takes a broader approach, helping clients develop personal and professional assets often through a reflective process that enhances the ability to understand oneself. This type of coaching is more general and often focuses on helping prepare clients to better deal with future challenges by better understanding themselves. Grant and colleagues suggest that the skills to be effective in each type of coaching situation may be somewhat different.

Research and Theory on the Psychology of Sport Coaching

How Has Coaching Science Been Studied?

Since the 1970s, researchers have paid considerable attention to research on coaching science, which is generally defined as studies of coach-directed processes focused on athlete learning, instruction, and coaching. Coaching science is a comprised of investigations coming from the fields of sport pedagogy, sport psychology, sport biomechanics, and sports medicine. Many of these studies focus on the psychology of coaching.

In 2004, Gilbert and Trudel conducted the most comprehensive review of the coaching science literature by identifying over 1,100 studies, of which 610 met their inclusion criteria. They were interested in examining how much research has been conducted and where it was published, areas of coaching science that have been most examined, the methods most often used, types of participants studied, and the types of sports and sporting contexts examined. Although their results did not examine trends by subdiscipline studied (e.g., coaching psychology), they do provide a useful context for understanding how researchers have approached the study of coaching science in general.

Results of Gilbert and Trudel's (2004) analysis revealed that the studies conducted between 1970 and 2001 could be grouped into four broad categories. These included coaching behavior studies (e.g., coaching effectiveness, coach–athlete relationships, and leadership style employed), studies of coaching thoughts (e.g., coach attitudes, decision-making knowledge, and perceptions), characteristics of coaches studied (e.g., investigations of

demographics, gender, and qualifications), and career (p. 345) development investigations (e.g., satisfaction, burnout, and coach education). The methods employed by the investigators were also identified.

Results from this review also identified a number of important trends in the literature. First, an increase in publication rate occurred between 1970 and 2001, with just under two articles published yearly in the 1970s to over 30 articles published by 2001. Articles were published in over 161 different journals. Second, topics most often examined included articles on coach behavior or what coaches do (51%), followed by career development articles (33%), coaching thought articles (29%), and coaching characteristic articles (26%).[1] Quantitative methods were most often used (80%), with questionnaire studies being most common (69%). However, an increase in qualitative methods was noted over time. Only 14% of the studies employed mixed-method designs. Fourth, head coaches were most often studied. Assistant coaches and other parties (e.g., officials, administrators) who interact or observe coaches were seldom examined. Finally, coaches from team sports were predominately studied, with much less attention given to individual sport coaches.

Based on their review, Gilbert and Trudel (2004) concluded that coaching science has benefited from being studied by researchers representing many subfields of kinesiology. However, because the research was dominated by studies describing behaviors of coaches, more studies that link coaching behaviors with other elements of coaching (such as thoughts and characteristics) are needed. A move to expand beyond quantitative survey methods was noted, with the importance of conducting more qualitative and intervention studies being particularly identified. They also indicated that research needs to move beyond a sole focus on head coaches and include more assistant coaches and other parties that influence coaches, such as officials and parents. A special need to examine female coaches was identified, as less than 5% of the studies reviewed by these researchers have included females. In addition, the research needs to expand beyond studies of team sport coaches and focus more on understanding the coaching process across sports and sport types. Because most of the research conducted to date had been descriptive in nature, a need to use or develop theories specific to coaching was emphasized, with the authors suggesting that the study of coaching practice may lead to theory development and that theory development might better explain coaching practice. Finally, most of the studies conducted in the area have been single, isolated studies with very few lines of research in coaching science being conducted. A need exists to do so.

Other researchers have conducted comprehensive reviews of the literature looking at more specific topics like coaching effectiveness (Horn, 2002, 2007), coaching expertise and effectiveness (Côté & Gilbert, 2009), decision-making processes in coaching (Abraham, Collins, & Martinale; 2006), coaching behaviors (Cushion, 2010), coaching leadership (Vella, Oades, & Crowe, 2010), and coaching behaviors associated with positive youth develop (Conroy & Coatsworth, 2006). Although these specific topics will be discussed later in this chapter, at this point, it is important to note that they all conclude that the psychology of coaching is a complex multivariate process that involves the reciprocal interaction of personal, environmental, and contextual factors. They also call for more research (especially systematic lines of inquiry), the need for theory development, and the use of multiple methods to understand the psychological aspects of coaching.

Psychology of Coaching Theories

Although coaching psychology research parallels that of coaching science in that the vast majority of research has been descriptive in nature, several efforts have been made to develop or apply theories that explain the specific psychological processes involved. Three theories have been most often used in the study of the psychological aspects of coaching. Two of these theories focus on leadership: Smoll and Smith's (1989) *cognitive-mediational coaching leadership model* and Chelladurai's (1978, 2007) *multidimensional model of sport leadership*. The third theory, developed by Mageau and Vallerand (2003), focuses on how the coach–athlete relationship influences motivation. Each of these will be briefly reviewed below.

The cognitive-mediational model of coaching leadership was developed by Smoll and Smith (1989) through their studies of youth sport coaches. It was their contention that to understand coaching leadership, one must consider situational factors and behaviors; individual differences between coaches; and cognitive processes that mediate antecedents, behaviors, and outcomes of coaches. Thus, coaches' behaviors are influenced by the personal makeup of the coach and the situation. However, the effects of a coach's behaviors on his or her athletes are mediated by how the athlete perceives the behaviors initiated by the coach. For example, according to this (p.

346) theory, how the positive or negative feedback given by a coach influence an athletes' performance, motivation, satisfaction, and affective reactions is not only dependent on the behavior exhibited by the coach, but on how the athlete perceives that behavior. A series of studies examining the relationship between youth sport coaches and young athletes' sport participation, motivation, satisfaction, anxiety, and self-esteem has been used as evidence to support this model (see Smoll & Smith, 2002).

The most researched theory in the psychology of coaching is Chelladurai's (1978, 2007) multidimensional model of sport leadership. Consistent with most contemporary theories of leadership, Chelladurai contends that a coach's effectiveness as a leader depends on her or his own characteristics, the characteristics of the athletes being coached, and constraints or situational influences (see also Chapter 17, this volume). In particular, he predicts that a leader is effective when there is a match between the required behavior needed in a situation, the actual behavior emitted by the leader, and the athletes' preferred leadership behaviors. Each of these central tenets are also predicted to be influenced by a variety of antecedent, personal, and situational influences such as age, skill level, organizational norms, and cultural values. Research has generally supported predictions of this model, which suggests that effective coaching is dependent on a match between a coach's preferred style, coach behaviors, the situation, and the preferences of those being coached. For example, when a coach is characterized by a style congruent with the preferences of the athletes, the athletes report more satisfaction and cohesion, better performance, and higher levels of intrinsic motivation. Antecedents of the effectiveness of coaching behaviors have also been identified, such as the age and gender of the athletes being coached. In particular, athletes prefer more autocratic and socially supportive coaches as they get older and more mature, and, in terms of gender, males prefer more autocratic styles of coaching whereas females prefer more democratic and participatory coaching styles (Weinberg & Gould, 2011). The benefits of having a coach lead in a manner consistent with athlete preferences are that athletes perform better, make up teams with increased cohesion, experience higher satisfaction, and have more intrinsic motivation.

Taking a different approach from the leadership theories, Mageau and Vallerand (2003) developed the coach–athlete relationship model of motivation to describe and explain how coaches influence athletes' motivation. Specifically, this model outlines a sequence of actions explaining how autonomy-supporting styles of coaching influence athletes' intrinsic motivation and self-determined extrinsic motivation (defined to occur when extrinsic reasons for taking part in an activity are accepted and internalized by the person and, therefore, self-determined). Mageau and Vallerand (2003) go on to indicate that autonomy-supportive coaching styles and behaviors imply:

> That coaches provide opportunities for choices, emphasize task relevance, explain reasons underlying rules and limits, acknowledge athletes' feelings and perspective, give athletes opportunities to take initiatives, provide non-controlling competence feedback, avoid controlling motivational strategies, and prevent ego-involvement in their athletes.
>
> (p. 898)

They further predict that the more coaches adopt such a style and its associated behaviors, the greater the athletes' needs for competence, autonomy, and relatedness are met. This, in turn, results in increased intrinsic motivation and productive self-determined forms of motivation.

Although a wealth of research directly testing Mageau and Vallerand's motivational model is lacking, it is based on three decades of research supporting Deci and Ryan's (1985, 2000) self-determination theory, which holds that it is in an individual's best interest to be intrinsically motivated and that autonomy-supportive instructional behaviors best lead to such behavior (see Chapter 12, this volume). Moreover, a number of sport psychological studies conducted with both coaches and athletes have supported self-determination theory predictions. For example, Scanlan and Lewthwaite (1986) found that young wrestlers who reported lower levels of intrinsic motivation perceived coaches to be more controlling and less supportive. Similarly, studying high school coaches, Amorose and Anderson-Butcher (2007) discovered that an autonomy-supportive coaching leadership style was associated with greater feelings of self-determined behaviors like effort, persistence, and feelings of autonomy in athletes.

Although more research is needed to test the coach–athlete relationship model of motivation (especially tests of the entire model), this theory is based on three decades of research supporting self-determination theory. Not only does it have good explanatory power, but it outlines a number of very specific strategies (e.g., emphasize task relevance, (p. 347) explain reasons underlying rules and limits) that coaches can use to foster intrinsic

motivation and self-determined behaviors in their athletes.

Psychology of Coaching Research

Although hundreds of studies have been conducted on the psychological aspects of sport coaching, the vast majority of this research has focused on what makes coaches effective (Côté & Gilbert, 2009; Cushion, 2010; Horn, 2002). Horn (2002) has provided the most comprehensive review of the literature in this area, resulting in a working model of coaching effectiveness. In her model, Horn contends that a coach's behavior "directly" influences athlete motivation, self-perceptions, beliefs, and attitudes, while also indicating that a coach "indirectly" influences his or her athletes as mediated by the athletes' interpretations and perceptions of those behaviors. Personal characteristics of the coach, sociocultural factors, organizational factors, and athlete characteristics are also identified as important antecedents of coaches' behavior. However, the links between these antecedents and a coach's behaviors are mediated by the coach's expectancies, beliefs, values, and behaviors. Hence, based on these antecedent conditions, a coach forms various expectancies and beliefs about his or her athletes, which in turn influence the coach's actual behaviors. These coaching behaviors then directly influence athlete motivation, beliefs, and attitudes and indirectly influence athletes perceptions and interpretations of those coaching actions and behaviors.

Another excellent review of the literature, specifically focusing on coaching effectiveness and expertise, has been conducted by Côté and Gilbert (2009). Côté and Gilbert (2009) define coaching effectiveness as "the consistent application of integrated professional, interpersonal, and intrapersonal knowledge to improve athletes' competence, confidence, connection, and character in specific contexts" (p. 316). Most importantly, they contend that coaching effectiveness is context specific. That is, effectiveness will vary based on whether one is coaching recreational sport, developmental sport, or elite sport. In addition, coaching effectiveness results in changes in four possible athlete outcomes (e.g., competence, confidence, connection, and character), with coaches integrating various sources of knowledge to guide their coaching actions in attempts to influence these outcomes. Côté and Gilbert further contend that expert coaches have complex knowledge structures that include both declarative (content) and procedural (how to deliver or use content) knowledge. Declarative knowledge would include sport-specific, professional (e.g., sport science), and pedagogical knowledge. In addition, effective coaches develop procedural interpersonal knowledge about how to work in complex social systems and intrapersonal knowledge that focuses on an understanding of oneself and consists of both introspection and reflection. Côté and Gilbert (2009), then, have provided a much needed comprehensive definition of coaching effectiveness and a heuristic model that ties the diverse literature together.

Space limitations prevent a more detailed review of the psychology of coaching literature here. Interested readers are referred to the works of Horn (2002), Côté and Gilbert (2009), and Cushion (2010) for more in-depth reviews. However, we will summarize and highlight below some of the major findings resulting from this research.

What Is Known About Effective Coaching Behaviors in Sport?

Cushion (2010) contends that coaching is an ever-changing social process, and, therefore, coaching behaviors must be viewed as a result of a dynamic interaction among coaches, athletes, and environment. However, because of the position of centrality that coaches hold in this process, their behaviors have been of primary interest to researchers. Through their words and actions, coaches have been shown to influence both the performance, cognition, and affective states of their athletes (Horn, 2002).

Some of the initial work in this area focused on the observations of outstanding coaches and the systematic recording of how they coached. For example, Tharp and Gallimore (1976) studied legendary University of California, Los Angeles (UCLA) basketball coach, John Wooden, and found that Wooden's coaching behaviors were characterized by verbal instruction (50%), encouraging players to hustle (13%), scolding and reinstructing (8%), praising and encouraging (7%), and scolding statements of displeasure (7%). More recently, Gallimore and Tharp (2004) reanalyzed their original data and conducted additional interviews with Wooden and his former players. They concluded that Wooden was an excellent and diligent planner, and this planning laid the foundation for the high information load, economy of talk, and practice organization; reserve players received higher incidences of praise than starters; being an exemplary role model was a highly intentional part of Wooden's coaching; and Wooden based his coaching on seven laws of (p. 348) learning that included explanation, demonstration,

imitation, and repetition.

Other investigators (e.g., Côté, Salmela, & Russell, 1995) have used qualitative interviews to understand the behaviors coaches report using. Interviews with elite Canadian gymnastic coaches revealed that they most often reported providing supportive environments through the use of positive feedback, gave healthy doses of technical instruction, taught mental skills such as stress management, simulated the mental and physical demands of competition, provided manual training to ensure safety, and stressed physical conditioning. Examining elite-level athletes' perceptions of great coaches, Becker (2009) also used interviews, finding that great coaches exhibit numerous coaching actions that can be broken down into seven categories. These include (1) teach sport skills (tactical, physical, mental, and life skills); (2) communicate effectively; (3) motivate; (4) prepare for competition (tactically, physically, mentally); (5) respond to athletes (through excitement, enjoyment, and displeasure); (6) perform well under pressure; and (7) disregard the irrelevant (focus on big picture).

Looking across these and other studies, reviewers (Cushion, 2010; Gilbert, 2010; Gilbert & Trudel, 2004; Horn, 2002) have generally concluded that top coaches focus on emphasizing instructional behaviors and conveying information. Cushion (2010) also suggests that silence has been identified as a "deliberate" coaching practice of top coaches, in which they intensely focus on the task of observing their athletes. These reviewers of the coaching behavior research have also suggested that these top coaches made efforts to construct positive working environments by providing support and encouragement by praising good performance. However, their feedback is contingent on player performance; they withhold praise unless it is deserved and, at times, scold players for undesirable behaviors. Scolding behaviors and punishment, however, are typically seen least often.

Not all the research has been conducted on elite coaches. Recreational-level youth coaches have also been a primary focus of study (see Conroy & Coatsworth, 2006, for a detailed review). The behaviors and actions of youth sport coaches have been shown to influence young athletes in a number of important ways. In a series of studies spanning several decades Smith, Smoll, and their associates (Smith, Smoll, & Barnett, 1995; Smith, Smoll, & Curtis, 1979; Smoll, Smith, Barnett, & Everett, 1993) found that coaches who were more positive in their coaching and/or took part in interventions that taught them how to be more positive and encouraging influenced the young athletes they coached in a number of important ways. Specifically, when compared to those coaches who did not undergo the training or were not as positive, these coaches were better liked by their athletes, and their athletes had increased self-esteem, reported lower anxiety and attrition levels, were motivated to participate, and enjoyed playing more.

Coatsworth and Conroy (2006) have also studied coaching behaviors in youth sport coaches. Their findings verified the previous research conducted by Smith, Smoll, and colleagues in that they found that swimming coaches who were trained in psychosocial and behavioral principles had swimmers who exhibited higher levels of self-esteem when compared to swimmers whose coaches did not take part in the intervention. Moreover, this significant relationship was strongest for younger swimmers, as well as for girls who began the program with low self-esteem.

Other researchers have found that when youth coaches create a coaching climate in which the focus is on individual improvement and mastery, young athletes report higher competence, effort, skill improvement, and intrinsic motivation (Halliburton & Weiss, 2002; Smith, Smoll, & Cummings, 2007; Theeboom, De Knoop, & Weiss, 1995; and see also Chapter 24, this volume). For instance, Smith, Smoll, and Cummings (2007) recently found that an intervention in which coaches adopted a mastery approach resulted in decreases in athlete anxiety over the course of a season. Cumming, Smoll, Smith, and Grossbard (2007) also found that young athletes' enjoyment and evaluations of their coach were more strongly related to coaching behaviors and motivational climate than to team win–loss records.

Thoughts, Attitudes, and Opinions of Coaches

A very diverse area of coaching psychology research has focused on the thoughts, attitudes, and opinions of coaches on a wide range of topics. A number of studies have asked coaches to identify the views and opinions about various issues. For example, Gould, Medbery, Damarjian and Lauer (1999) surveyed 153 junior tennis coaches to assess their opinions about the importance of mental skills training, strategies they use to teach mental skills, and recommendations for making mental skills training more effective. The coaches rated reframing

pressure, crisis management, self-confidence, (p. 349) and emotional control as the mental skills most difficult to teach. These coaches also listed roadblocks to teaching mental skills, which included a lack of time, difficulty evaluating mental skills training success, a lack of interest, and the lack of availability of model coaches who teach mental skills. In another study, Gould, Greenleaf, Guinan, and Chung (2002) surveyed 65 Olympic coaches for the purpose of identifying variables that influenced both their own performance effectiveness as a coach and their athletes'/teams' performance at the Olympic Games. Most interesting were results that revealed that those variables rated as most influential to coaching performance included marked changes in their coaching behaviors, the inability to establish trust with their athletes, poor crisis management, handling pressure, and making fair but decisive decisions. It was concluded that coaches need to develop psychological skills to handle the pressure of the Olympics, just as their athletes do.

Although studies such as these have been useful in identifying coaches' opinions and attitudes about specific issues in sport, this literature is very difficult to draw general conclusions from because of its idiosyncratic nature, the array of topics addressed (topics explored range from mental training to sportsmanship, and even included areas such as attitudes about what topics to include in coaching education programs), and the lack of any unifying theories that help draw the literature together.

One theoretically based area of study focuses on coaches' efficacy beliefs relative to their ability to coach (Feltz, Short, & Sullivan, 2008). Drawing from the extensive body of research on self-efficacy (Bandura, 1977, 1997), Feltz, Chase, Moritz, and Sullivan (1999) developed a model of coaching efficacy. Coaching efficacy was defined as a coach's belief that he or she has "the capacity to affect the learning and performance of their athletes" (Feltz et al., 2008, p. 153). They contend that coaching efficacy is comprised of four dimensions, all of which have been verified in factor analytic studies. These include game strategy (e.g., ability to coach during competition), motivation (e.g., ability to influence psychological states of athletes), technique (e.g., ability to instruct), and character building (e.g., ability to foster a positive attitude toward sport).

Feltz and her colleagues (1999) contend that the confidence or efficacy that a coach has in his or her own coaching capacities influences important outcomes such as coaching behavior, player and team satisfaction, player and team performance, and player and team self-efficacy. Moreover, one's coaching efficacy has a number of diverse sources such as past experience, prior win–loss record, perceived skill of one's athletes, and social support from the school, parents, community, and administrators.

Initial research testing the coaching efficacy model, although limited, has been encouraging as it has provided support for most of its major predictions (Feltz et al., 2008). For example, the most important sources of coaching efficacy identified have been years of experience and community support, although other sources are being explored (e.g., previous playing experience, imagery). Several studies have also shown that coaching education enhances coaching efficacy (e.g., Campbell & Sullivan, 2005; Lee, Malete, & Feltz, 2002). Finally, coaching efficacy has been found to be linked to coach praise and encouragement (Feltz et al., 1999) and commitment (Kent & Sullivan, 2003), as well as athlete and team outcomes such as satisfaction and performance (Feltz et al., 1999; Myers, Vargas-Tonsing, & Feltz, 2005). Coaching efficacy, then, seems to be an important variable in the psychology of coaching.

Coaching Special Populations

Women and Coaching

A topic of considerable importance in coaching and coaching psychology is that of women in coaching and differences between coaching male and female athletes. Two central issues characterize this area of study. A primary concern is explaining why women are under-represented in coaching and discovering ways to encourage more women to become and stay involved in coaching. The second area inquires into whether gender-related differences in coaching behaviors and styles are associated with male versus female coaches and in coaching male and female athletes. Each of these will be briefly discussed below.

Acosta and Carpenter (2012) have reported results from a 35-year longitudinal study that provided convincing evidence that women are under-represented in all levels of the coaching profession, despite the enactment of Title IX legislation in the United States in 1972 and the subsequent tremendous growth of participation in women's sports

over the last 40 years. For example, only 43% of coaches of women's college sports teams are women, and women hold 57% of the paid assistant coaching positions for women's teams. Also, in 2000, only 11% of the national teams were coached by women in Canada (Marshall, 2001). More disconcerting is the finding that, since 2000, most hires of coaches (p. 350) for women's teams are males. In reviewing the literature explaining the under-representation of women in coaching, Kilty (2006) identified a number of external and internal barriers to women coaching. External barriers included unequal assumptions about competence, in which males are assumed to be more competent; hiring from a principle of similarity, in which most athletic administrators are males and typically hire individuals similar to themselves; homophobia; and a lack of female coaching mentors. Internal barriers included perfectionism, in which women focus on their deficits more than their strengths, lack of assertiveness, inhibition in promotion of their accomplishments, and stress associated with balancing work and personal life. Kilty (2006) concludes by indicating that efforts must be made to recruit and retain more women in coaching by exploring online mentoring program opportunities, developing continuing education classes aimed at promoting connection and voice, identifying best practices for helping female coaches with children stay involved, and identifying effective ways to engage men in advocating for women as coaches.

Finally, after studying Canadian coaches, Reade, Rodgers, and Norman (2009) suggest that proportional hiring practices be implemented. A proportional hiring policy would mandate that more women be hired for higher level coaching positions and more men for lower level positions because their evidence shows that such disproportions currently exist despite women being qualified for higher level positions.

In terms of differences in the psychology of coaching male versus female athletes, very little research has directly examined this issue. However, a number of studies in diverse areas point to the fact that males and females differ in important ways in their psychosocial makeup and, because of this, practitioners have discussed the need for coaches to coach their male and female athletes differently or to better understand the effects of one's coaching behaviors on different genders (Deboer, 2004). For example, after reviewing the literature, Wiese-Bjornstal (2007) indicated that female versus male athletes generally have lower levels of perceived competence (but perhaps more realistic levels), cite emotional support as an important dimension of friendship, are more interested in developing their personal capacities than they are in establishing superiority over others, report more social physique anxiety, are more concerned with coach improprieties, and tend to use higher levels of moral reasoning.

In a qualitative study of cross-country coaches who had coached both male and female athletes, Tuffey (1995) found that these coaches believed that female athletes were coachable, more emotional and sensitive, feel expectations and want to please, are competitive with teammates, and are both academically and weight conscious. In contrast, they described the male athletes they had coached as having more “know it all” attitudes and being more likely to challenge their coach, ego-involved and struggle when not winning, tend to get off track, have more of a team emphasis, and are less emotional than females and/or more likely to hide their emotions. The coaches studied also indicated that they coached their male and female athletes differently—being more blunt and confrontational with their male athletes and more sensitive with their female athletes. The coaches also said that they emphasize winning more with male athletes and doing one's best with female athletes. However, it is important to note that these data were based on interviews with coaches and their perceptions of their effectiveness. Findings were not triangulated through interviews with the coaches’ athletes or via observational techniques. Finally, in a study of 38 elite female soccer players from Germany, Norway, Sweden, and the United States, Fasting and Pfister (2000) examined their expectations and evaluations of male versus female coaches. The players reported on strengths and limitations of both male and female coaches that they played for in the past. However, they indicated that male coaches often used a “masculine” style of communication/interaction that involved yelling and being very strict, which was not perceived favorably. These players were also more satisfied with female coaches’ communication styles, feeling they were better at understanding them psychologically and demonstrating a more empathic approach.

In addition to the study of gender differences in coaching, in the last few years an increased effort has been made to better understand girls’ sport participation and the role that coaches play in this, especially the role that female coaches can play. Specifically, Team Up For Youth (a California-based organization whose mission is to create after-school sports opportunities for youth) dedicated a special initiative to address some of the gender differences that coaches should be aware of and have provided various strategies for coaches to implement when coaching girls across different age groups (2006). These include using lots of praise and fun, cooperative games during the earlier years, and employing (p. 351) peer coaching and team unity development as the girls matured. This

initiative not only focused on educating coaches, but also on attracting and training female coaches, as they believe that having "women coaches set off a domino effect" for girls' sport participation (http://www.teamupforyouth.org/ourwork/initiatives/). This approach is consistent with the current research. From her review of the literature, for example, Wiese-Bjornstal (2007) concluded that:

> Girls want coaches to provide good technical instruction and contingent positive feedback; allow them to participate in decision-making about goals, practices, and games; create positive team atmospheres; and develop warm interpersonal relationships with them (Mageau & Vallerand, 2003; Martin, Jackson, Richardson, & Weiller, 1999; Weiss, Ebbeck, & Horn, 1997). These characteristics of social relationships with coaches affect girls' continued participation through increasing their satisfaction with, and confidence in, their sport experiences.
>
> (p. 11)

In summary, the research conducted thus far suggests that male and female athletes differ in some important ways. Because of these differences, varied psychological approaches to coaching males and females are needed. However, while recognizing gender-related issues, most investigators believe that more differences exist within genders than between them so that, above all else, coaches must treat athletes of all genders as individuals and make efforts to meet their individual needs.

Coaching Life Skills

In recent years, considerable attention has been focused on studying the development of life skills in physical activity participants, particularly youth (see Gould & Carson, 2008 for a review). Life skills are typically defined as "those internal personal assets, characteristics and skills such as goal setting, emotional control, self-esteem and hard work ethic that can be facilitated or developed in sport and are transferred for use in nonsport settings" (Gould & Carson, 2008, p. 60). Of relevance to this chapter are investigations that have specifically focused on coaching life skills in athletes and the suggestion that coach training should specifically focus on promoting youth social development (Conroy & Coatsworth, 2006; see also Chapter 24, this volume). For example, Gould, Chung, Smith, and White (2006) have examined coaches' attitudes toward teaching life skills and what life skills they perceive most need development in young athletes. Ratings by coaches showed that taking personal responsibility, developing motivation/work ethic, developing better communication and listening skills, dealing with parents, and achieving better grades were felt to be most in need of development.

In a second study, Jones and Lavelle (2009) conducted qualitative interviews with coaches, sport psychologists, graduate students, and young athletes to identify the life skills that were perceived as most needing development. Findings indicated that two overarching categories of life skills are commonly identified: personal skills (e.g., self-organization, goal setting, motivation) and social skills (e.g., respect, leadership, communication, family interaction). Of the two general categories, social skills were identified as the most in need of development,

Several studies have focused particular attention on the process coaches use to develop life skills in young athletes. For example, Gould and his colleagues (Collins, Gould, Lauer, & Chung, 2009; Gould, Collins, Lauer, & Chung; 2006, 2007) interviewed high school football coaches who were recognized for their effectiveness at developing life skills in their athletes to ascertain their approach toward skill development. These coaches reported using a variety of life skills coaching strategies. Additionally, the coaches were found to have coaching philosophies that placed highest priority on life skills development, were able to foster strong relationships with their athletes, utilized specific life skills strategies that were implemented in both direct and indirect manners, and considered and adapted their life skill teaching strategies to the particular context in which they coached. Finally, and perhaps most importantly, the coaches reported that they did not separate out their life skill coaching, but integrated it in their general coaching strategies.

A season-long case study was used by Holt, Tink, Mandigo, and Fox (2008) to discover how youth learned life skills from their coach and through sport participation. Participants included one Canadian high school soccer team and its coach, with both in-depth interviews and field observations used to collect data. Results revealed that the head coach embraced a philosophy of building relationships with the players and involving them in decisions. Players reported that respect, teamwork, leadership, and initiative were the life outcomes derived from their soccer participation. Little evidence was found that the coach directly taught these life skills, (p. 352) however. In

contrast, it was found that this coach created opportunities for his athletes to use life skills and then reinforced players for their use. When asked what life skills transferred beyond sport, only teamwork and leadership were identified by the athletes. Holt and his colleagues (2008) concluded that the athletes created their own life skills learning experiences in the teamwork and leadership areas. They also concluded that it appears that youth with certain life skills are attracted to sport, where they can further develop these skills. Thus, coaching life skills may not be as much about the direct teaching of these skills as about creating conditions in which they can be self-generated, revealed, and reinforced.

Finally, Gould and Carson (2010, 2011) have conducted several empirical studies testing the relationships between perceived coaching actions and behaviors and the development of life skills in young athletes. Findings revealed that high school athletes who reported increased opportunities for the development of emotional regulation, more cognitive skills development, more feedback, pro-social norms, and linkages to community sport experiences also reported experiencing coaching that was characterized by higher levels of facilitating competition strategies, goal setting, talking more about how sport lessons related to life, and positive rapport development. Negative experiences reported from sport participation by the young athletes were associated with greater negative rapport with coaches and fewer coaching efforts to help the athletes work on mental preparation, goal setting, and competition strategies; less modeling of good sportsmanship; and less motivation to work hard on one's own.

These initial studies were recently extended by Gould, Flett, and Lauer (2012) in a study of middle and high school–aged baseball and softball players from an underserved community. The players completed the Youth Experiences Scale (YES-2), a self-report measure of what young people believe they learn from sport (e.g., teamwork, initiative), the Sport Motivational Climate Scale, the Caring Climate Scale, and assessments of the importance their coaches placed on life skills. Although a number of complex multivariate relationships were evident among these variables, the major findings showed that the more coaches created caring, mastery-oriented environments, the more likely that positive YES-2 developmental scores increased. It was also found that ego-oriented climates were associated with negative experiences. This is consistent with earlier research, which has shown that the motivational (Smith et al., 2007) and caring climates (Fry & Gano-Overway, 2010; Gano-Overway, Newton, Magyar, Fry, Kim, & Guivernau, 2009) created by coaches and adult leaders are correlated to the development of life skills. Thus, if coaches are interested in enhancing the life skills development of their players, the type of coaching climate they create appears to be essential.

Not all the coaching life skills research has focused on young athletes. Flett, Gould, Paule, and Schneider (2010) conducted a study with Canadian university coaches. These coaches described intangible life skills like social character, maturity, resiliency, and work ethic as being important factors facilitating athletic performance. This finding is important because most of the previous life skill coaching research has not linked life skills to enhanced performance, although the coaches identified in the Gould et al. (2006, 2007) high school coaches life skill study were highly successful, winning over 75% of all the games they coached. Those coaches felt that the life skills they helped developed in their athletes not only helped the athletes off the field but on the field as well.

Finally, although these studies show that coaches view life skills as important, and they create environments and act in ways associated with their development, the question remains as to how widespread are these life skills coaching efforts. Several investigators (Boon & Gilbert, 2010; Lacroix, Camire, & Trudel, 2008; McCallister, Blinde, & Weiss, 2000) have found that coaches either are not aware of the life skills objectives of their organization or, although they believe sport participation develops life skills, when probed they can identify few specific strategies for doing so. Boon and Gilbert (2010), in a study focused on teaching citizenship through soccer, summed this up best when they indicated that coaches:

> Despite an average of 10.3 years of youth sport experience and participation in highly structured and well-established youth sport organization (e.g., American Youth Soccer Organization), [coaches] could provide relatively few specific examples of strategies they use to teach citizenship skills.
>
> (p. 45)

This has led investigators to conclude that many coaches have been socialized to believe that mere participation in sport fosters the development of life skills and other personal characteristics and are not making the intentional efforts needed to psychologically coach these skills. Indeed, Camire, Forneris, Trudel, and Bernard (2011) recently outlined specific strategies that coaches should intentionally employ to enhance positive youth development

through sport.

Sport sociologist Jay Coakley (2011) has also recently suggested that most people in English-speaking societies have bought into the sport evangelist myth, assuming that sport participation automatically leads to the development of many positive psychosocial outcomes such as leadership, the enhancement of self-esteem, teamwork, and work ethic. However, Coakley suggests that few efforts have been made to support these claims and that little evidence exists to back up and establish the limits of sport for enhancing life skills development. Although we believe that Coakley raises some very important issues, especially concerning the limits of sport for enhancing youth development, he fails to recognize some of the existing sport psychological research linking sport participation to life skills development. Hence, from our review of the literature, we conclude that sport is associated with the development of some life skills, especially when coaches make targeted efforts to develop those skills. What remains unknown, however, is the degree to which coaches take intentional actions to develop these skills, what skills may best be developed in sport, the limits of sport in developing life skills, and the degree to which life skills and character is revealed versus developed via sport participation.

This emerging research on coaching life skills, then, shows that coaches' actions and the participation climates they create are associated with the development of life skills in their athletes. Coaches skilled at teaching life skills use both direct and indirect strategies for teaching life skills and are very intentional in doing so. Athletes appear to develop transferable life skills when their coaches have a philosophy that places primary importance on life skills development, create positive coach–athlete relationships, and create mastery-oriented and caring-motivational participation climates. These conclusions must be tempered, however, by the fact that the majority of research to date has been correlational and descriptive in nature, with the volume of research being limited. More research is needed, especially intervention studies that assess life skills in a prospective fashion. The limits of sport in developing life skills must also be established. Moreover, although many coaches seem to believe that life skills are developed via sport participation, few are making intentional efforts to specifically coach these skills. Hence, a challenge for sport psychologists and coaching educators is to understand how to persuade coaches that life skills must be intentionally fostered and coached in their programs. These skills will not be "caught" through mere participation.

Coaching Education and Development

One psychology of coaching theme of interest that has emerged over the last two decades has been an examination of the process by which coaches learn to coach. This area of research can be discussed by answering four questions: What experiences lead one to become a coach? What competencies make up coaching expertise? How do coaches learn to develop their competencies? And, how does one's coaching philosophy influence one's coaching? The research focused on each of these questions is discussed here.

What Experiences Lead One to Coach?

A number of investigators have been examining what experiences are associated with becoming a coach. Conducting several qualitative interview studies with ice hockey, field hockey, and basketball coaches, Salmela and his colleagues (Salmela, 1995; Salmela, Draper, & Desjardins, 1994) studied the developmental paths they took to become university coaches. Although variability was noted between coaches, consistency was also found and stages of development were identified, such as an early diverse sports involvement, initial coaching experience, and specialist coaching experience. In a more recent quantitative study of 19 Canadian University coaches (10 team, 9 individual sports), Erickson, Côté, and Fraser-Thomas (2007) identified five stages of development for elite sport coaches: (1) early, often diverse, sport participation under the age of 12; (2) competitive sports participation, which could involve multiple or single sport participation with most athlete leadership experiences occurring during this stage (ages 13–18); (3) highly competitive sport participation (ages 19–23); (4) part-time early coaching (ages 24–28); and (5) high-performance elite head coaching.

Based on this research, developing into an expert coach is like developing expertise in other endeavors; it is a long-term process that requires a minimum of 10 years of consistent training and development (Erickson et al., 2007). In addition, those who become expert coaches have previous experiences in the sport they coach, often play multiple sports when they are young, have opportunities to lead as a developing athlete, and often are mentored by (p. 354) more experienced coaches. Missing from this line of research is an in-depth examination of

the motives elite coaches have for coaching and a more in-depth examination of the developmental pathways of coaches who are particularly strong in their ability to psychologically coach their athletes.

What Competencies Make Up Coaching Expertise?

Schempp and McCullick (2010) reviewed the literature on coaches' expertise and concluded that expertise in coaching consists of both knowledge and skills, learned through experience. Relative to knowledge, they contend that expert coaches make significant investments in their own learning and, unlike less expert coaches, are never satisfied with their learning. They go on to indicate that their research shows that expert coaches possess extensive knowledge of their sport and are able to synthesize and distill their knowledge into information that athletes can understand and use. Experts also demonstrate greater flexibility in applying knowledge (e.g., the expert coach knows when praise may communicate low expectations whereas the nonexpert coach always provides positive feedback regardless of the individual and context).

In terms of the skills of expert coaches, Schempp and McCullick's (2010) review of the coaching expertise research shows that expert coaches differ from their nonexpert counterparts in their planning, attentional/perceptual, prediction, decision-making, communication, and problem-solving skills. For example, McCullick, Schempp, Hsu et al. (2006) found that expert sport instructors better recognize similarities across situations and time. There also exist working memory differences, as expert coaches have been shown not only to recall greater information about familiar coaching situations, but recall the most relevant information from the situation (McCullick et al., 2006). Finally, expert coaches have the ability to attend to individual players while at the same time monitoring the entire practice or game setting and are better able to distinguish between more versus less relevant information from observations (Schempp & McCullick, 2010). Experts versus nonexperts see past symptoms of performance-based problems and are better at identifying the root causes of poor performance (McCullick, Cummings, & Schempp, 1999).

Although the expert versus nonexpert research literature shows clear differences on a variety of knowledge and skill dimensions, it is somewhat limited in that it has almost exclusively focused on differences related to the teaching of skills. Few studies have examined differences in coaches' ability to communicate, in emotional intelligence, or in use of motivational strategies. Examining differences in these areas is important in light of the coaching leadership research that suggests that emotional intelligence is associated with leader effectiveness (Barling, Slater, & Kelloway, 1999; see also Chapter 4, this volume).

Lyle (2010) reviewed the coach decision-making literature and has suggested a major paradigmatic shift in the way decision-making differences are studied in coaches, arguing that a naturalistic decision-making approach should be adopted. This approach recognizes that coach decision-making is best understood by examining the complex course of decision-making action (the process) versus a set-piece decision-making event. This process involves the coach matching the demands of the situation with the most appropriate action or decisions based on a range of possible solutions learned from a variety of coach training and educational contexts, such as formal education, reflection and discussion, and modeling of significant others. These solutions are also being constantly used and refined via coaching practice. Last, this naturalistic approach relies heavily on intuition, which is argued to be a learned capacity that can be developed and refined through practice. This new approach seems to better address the complexity of coaching, the literature on ways coaches learn, and how coaches must also act on partial information in complex, dynamic environments.

Finally, Abraham, Collins, and Martindale (2006) contend that coaching is largely a decision-making process. They also developed a schematic model explaining the decision-making process in coaching, arguing that decisions are derived from various knowledge sources, including sport-specific, pedagogical, and sport science knowledge sources. These knowledge sources guide coaches' physical, mental, and life skills training efforts that occur in training, preparation, and competition environments and ultimately influence coaching outcomes and goals. Preliminary evidence was also provided for their model from interviews of 16 expert coaches.

How Do Coaches Learn to Coach?

Many countries around the world have developed formal systems for educating coaches. Most of these systems consist of graded levels or courses and focus attention not only on sport-specific tactics and techniques, but also on more general sport science (p. 355) information about physical training, psychology, and best teaching

practices. Historically, coaches have been taught by experts in the various subfields in large-group lecture formats. However, researchers who have interviewed and surveyed coaches have discovered that these formal, lecture-based courses, although often viewed as helpful, are rated much lower in terms of how coaches actually learn when compared to nonformal (e.g., workshop) and informal (e.g., observing other coaches) experiential opportunities housed in the actual contexts that they coach (Trudel, Gilbert, & Werthner, 2010).

These findings have led a number of sport psychologists to the study of how coaches learn and develop. The major finding of this research is that coaches learn to coach much more by doing (coaching) and reflecting on those experiences (Gilbert, Gallimore, & Trudel, 2009) than they do via formal educational programs. Coaches place great value on learning through both experience and via interaction with their peers. This has led researchers to conceptualize coach learning as a social process that is inseparably embedded in specific coaching contexts (Gilbert, 2010). For this reason, contemporary researchers are emphasizing the need to examine the social networks within which coaches learn and how the experiences gained from these social networks impact coach development.

Because researchers now feel that best coaching practices are context-specific, they have begun to better define sport coaching contexts. For example, Trudel and Gilbert (2006) have suggested that coaching practices be studied specific to the recreational sport context, the developmental sport context (programs geared for developing more talented players), and the elite sport context. Other possible contexts to consider are gender of athlete and coach, coach age, and experience. Hence, investigators should study differences across these contexts or qualify their recommendations to the context. In addition to the context, a great deal of attention is being placed on the process of how coaches actually learn in these nonformal and informal settings. Borrowing from general educational research and studying the youth sports environment, for example, Gilbert and Trudel (2004) have discussed the notion of coaching reflection. Based on case studies with six model youth sport coaches, these investigators contend that learning takes place because the coach reflects on his or her experiences in three ways: *reflection in action*, in which a coach reflects on what is happening during a current practice or game; *reflection on action*, in which the coach reflects about what happened after the game or practice is completed; and *retrospective reflection on action*, which occurs at the end of a season. Trudel and Gilbert (2006) also suggest that pedagogical strategies like journaling, creating coaching portfolios, engaging in group discussion, and video analysis are important ways to facilitate coach reflection.

The idea of *learning communities*, in which small groups of coaches with similar goals have regular opportunities to discuss their experiences, share ideas, test solutions, and receive feedback from others, has also been discussed as a way of facilitating coach learning via experience (Gilbert et al., 2009). It is further suggested that keys to implementing such an approach include having regular opportunities to share ideas with other coaches, actually resolving dilemmas with evidence, and making solutions public. Although the idea of coaching learning communities is intuitively appealing in light of what is known about how coaches learn via experience, whether and how they can be implemented given the time demands and competitive nature of sport (i.e., coaches may not want to share ideas with other coaches because they will play their teams later) is a question needing further study.

Does One's Coaching Philosophy Influence One's Coaching?

Only recently have coaching researchers (Jenkins, 2010) called for more scientific research focused on the coaching philosophies that coaches develop and act upon. The lack of research in this area is surprising, given the emphasis placed on developing a coaching philosophy in almost all coaching education programs (e.g., Martens, 2004). Coaching philosophies are thought to focus on coaches' beliefs, values, and priorities, as reflected in the following definitions. One definition of a coaching philosophy is provided by Burton & Raedeke (2008), "a set of beliefs and principles that guide a coach's behavior," (p. 4). Lyle (1999) also provided a more in-depth definition:

> A comprehensive statement about beliefs and behaviors that will characterize the coach's practice. These beliefs and behaviors will either reflect a deeper set of values held by the coach, or will be the recognition of a set of externally imposed expectations to which the coaches feel the need to adhere.
>
> (p. 28)

Given these definitions, a coach's philosophy is expected to drive coaching actions and, for the (p. 356) purpose

of this chapter, the approach and style the coach adopts to psychologically working with their athletes and teams.

The initial research addressing the coaching philosophy–behavior link is mixed. Schempp, McCullick, Busch et al. (2006), in a qualitative study of 31 top golf instructors, reported that these outstanding instructors had definite philosophies of teaching (e.g., beliefs about learner needs, what to teach, purpose, and ways to teach) that guided their teaching. Collins, Gould, Lauer, and Chung (2009) studied award-winning high school coaches, recognized for not only their abilities to be successful on the field but more importantly for their success in developing their athletes as people. Collins et al. found that these individuals had well thought-out philosophies that placed primary importance on developing character in their athletes. Also emphasized were those core values that these coaches indicated drove their coaching actions. In contrast to these studies, McCallister, Blinde, and Weiss (2000), found youth sport coaches espoused core values, such as developing life skills, but found little evidence that the coaches initiated specific strategies to teach these values and skills to their athletes. This might be explained by experience differences in the coaches sampled, as Nash, Sproule, and Horton (2008) found that, as coaches become more experienced and gain knowledge, they are better able to articulate their coaching philosophies and tie that philosophy to the context they coach within. An interesting developmental question, then, is how coaching philosophies are developed in coaches with different levels of experiences and who work in different contexts.

An excellent example of how one's philosophy drives one's coaching practice comes from highly regarded British business coaching expert John Whitmore (2009). Whitmore contends that coaches, in both sport and business, are often ineffective because they spend most of their time telling performers what to do and directing them. He suggests that a much more powerful coaching practice lies in moving away from telling the performer what to do, and instead focuses on asking a series of questions designed to increase performer "self-awareness" while at the same time shifting "responsibility" for performance from the coach to the performer him- or herself. To do this, Whitmore has popularized the GROW model of asking questions, in which the coach focuses on asking her or his athlete a series of "G" or *grow questions* (e.g., "What do you hope to accomplish?" "What would you like to happen as a result of a coaching session?"); "R" or *reality questions* (e.g., "What have you tried so far?" "What have you seen other people do to accomplish this goal?"); "O" or *option questions* (e.g., "What could you do?" "What options might you try to accomplish your goal?"); and, "W" or *will questions* (e.g., "What will you try to do to accomplish your goal as a result of this discussion?" "What will I see differently over the next 2 weeks as a result of this discussion?"). Although the GROW model is a very popular coaching tool and has had preliminary evidence support its effectiveness (Gant, Curtayne, & Burton, 2009; Spense & Gant, 2005), Whitmore contends that it is just that: a tool or technique. What this model really hinges on is the philosophical approach one adopts when using the GROW model to coach. In particular, Whitmore's approach is grounded in the belief that the best answers to a performance issue or to performing better lie within the performer him- or herself and not necessarily within the coach. The coaches' job is to ask questions using the GROW model and, in so doing, increase performer "awareness" and "generate a feeling of personal responsibility" for one's own performance—versus relying on others to direct performance or solve issues at hand. By doing so, the performer takes more ownership of performance and experiences feelings of autonomy, intrinsic motivation, and pleasure.

More research is needed to examine the correspondence between one's coaching philosophy (beliefs, values) and coaching behaviors. In addition, in reviewing this literature, Jenkins (2010) suggests that self-awareness plays a key role in both developing one's philosophy and understanding the philosophical values–coaching behaviors link, whereas Schempp, McCullick, Busch et al. (2006) emphasize the importance of self-reflection. Moreover, given the increasing emphasis on visionary and transformational leadership in general (Northhouse, 2010) and within sport psychology leadership research (Chelladurai, 2007), it is important for sport psychology researchers to better understand the link between a coaches' philosophy and coaching practice. For example, how does one's philosophy link to relationship skills with athletes, reading athletes' psychological states, allowing athletes to take more ownership of their performance, and the team cohesion–performance relationship? Similarly, how do athlete performance, motivation, and satisfaction change as a result of using a GROW model approach versus more traditional talking at and directive approaches to coaching?

(p. 357) Emerging Research on the Psychology of Coaching

Although mentoring and coaching have surely always existed within high-performance professions, in the last 15 years psychologists, business professionals, military personnel, and scholars from the performing arts have begun

to formally employ coaching strategies and terminology in their work with clients. This general coaching movement began in applied settings, in which individuals from these varied backgrounds began to provide individual coaching consultations to improve both client performance and well-being. It has grown considerably; in 2007, for example, it was estimated that 30,000 coaches were working worldwide in an industry generating over $1 billion in revenue annually (Bono, Purvanova, Towler, & Peterson, 2009).

During this period, a number of sport psychologists (Bull, 2006; Gordon, 2007; Jones, 2002; Jones & Morehouse, 2007; Loehr & Schwartz, 2001; Murphy, 1996) have expanded their sport psychology consulting work to business populations, suggesting that parallels exist between high-performance sport and business and that those in business can profit from what has been learned about helping athletes and teams achieve sporting excellence. These individuals have suggested that those in business are elite performers, like athletes, and must manage their physical, mental, emotional, and spiritual energy to achieve peak performance (Loehr & Schwartz, 2001; Murphy, 1996); develop mental toughness skills to cope with the stress and adversity that comes with striving for business excellence (Bull, 2006; Jones & Morehouse, 2007); develop their own leadership skills (Jones, 2002); and create high-performing teams (Gordon, 2007; Jones, 2002). Gordon (2007), however, has noted that not only can sport psychology principles be transferred to help coaches working in the business setting, but also that best business practices, such as creating team visions and missions, can be used by sport coaches to improve performance.

Although applied coaching psychology has exploded in recent years, research and theory on coaching has lagged far behind this applied consulting work. In fact, only in the last decade have researchers become interested in conducting studies on the psychology of coaching in nonsport arenas. Although it is beyond the scope of this chapter to provide a detailed review of this literature, some example studies and trends will be highlighted here. It will also be argued that the scholars from the diverse fields involved in coaching should strive to cross-fertilize their knowledge acquisition efforts by more often reading, integrating, and citing research literature across disciplinary boundaries. This will allow for the identification of general principles that cut across fields, while at the same time helping to identify more context-specific guidelines and highlighting highly idiosyncratic coaching practices.

Although research on the psychology of coaching is in its infancy, a range of topics and issues are beginning to be studied. For example, in the 2009 issue of *Coaching: An International Journal of Theory, Research and Practice*, studies focused on such issues as identifying tools for supporting intuition (Pritchard, 2009), mapping mind complexity as a result of coaching (Berger & Atkins, 2009), the use of a cognitive-behavioral intervention for overcoming procrastination (Karas & Spada, 2009), and the effects coaching has on student examination performance (Passmore & Brown, 2009). A variety of qualitative and quantitative methods have been employed in these studies, and diverse subject populations have been used. Looking across this literature, however, the populations most studied are executive coaches, with life and health coaches and coaching being studied less often (Passmore & Brown, 2009). Research studying coaching in educational settings and coaching with nonadult populations is lacking.

One of the most-studied topics is the effectiveness of coaching. Hernez-Boone (2004, as cited in MacKie, 2007) studied 22 participants from the Center for Creative Leadership leader development program who received follow-up coaching and compared them to noncoached individuals from the program. Interviews revealed that the coached group focused more on leadership and coaching others and reported more often achieving their self-identified objectives. In another study, Karas and Spada (2009) used cognitive-behavioral coaching skills (e.g., decision balance analysis, goal setting, task prioritization, self-talk instruction) using an A-B direct replication across participants design. Participants were seven individuals from the community who were self-identified procrastinators. Results revealed that participants showed declines in procrastination after the intervention, with results only showing slight deteriorations over time. Finally, Hall, Otazo, and Hollenbeck (1999) interviewed 75 executives who were participating in executive coaching at the time of the study. Results revealed that these individuals who were being coached self-reported learning, changes in (p. 358) behaviors, and positive affective changes as a result of their coaching experiences.

As these examples suggest, evidence is starting to be amassed to show that coaching has positive effects in nonsport settings. However, the database is still small, and many studies are descriptive in nature and have not employed rigorous designs. Moreover, given how diverse the field of contemporary coaching is, a need exists to better map out what is happening in the field, who is coaching, and chronicle the current practices these

individuals employ. Bono and her colleagues (2009) addressed this issue by surveying over 425 coaches who were either psychologists or nonpsychologists. Results revealed that 282 specific competencies were identified by the sample as skills one needed to coach and were categorized into four categories: *Diagnostic and Planning Capabilities*, which included questioning, listening, communication skills, assessment, analysis, and planning and intervention success assessment; *Intervention and Problem Solving Capabilities*, comprised of a large flexible toolbox, being a motivator, building relationships and achieving rapport, counseling skills, feedback, and holding clients accountable; *Knowledge*, made up of business knowledge, knowledge of human behavior, and knowledge of participant background; and *Personal Qualities*, such as authenticity, honesty and integrity, life and job experience, continuous leaning, self-management and professionalism, and client focus. The ability to build rapport, listen, and counsel were seen as especially critical skills. Given current controversies surrounding what qualifications one needs to be a coach (Gant, Passmore, Cavanagh, & Parker, 2010), Bono et al's. (2009) results indicate that there are as many differences among psychologically trained coaches as there are between psychologically and nonpsychologically trained coaches. Those differences that did exist between the two groups were very small. This led the authors to conclude that the longstanding debate about whether psychological versus nonpsychological training is necessary to prepare one to coach is of limited value. Instead, research should be directed toward answering what specific abilities, knowledge, insights, and skills coaches need to possess in order to be effective and what coaching actions best predict long-term change in clients.

After reviewing the literature on executive coaching research, Feldman and Lankau (2005) concluded that although positive outcomes for clients and organizations have been found, conducting research in this area is very difficult as "coaching is now so diverse that it is more difficult to put boundaries around the construct itself and the appropriate range and scope of its associated outcomes" (p. 845). They also note that coaching is something of a black box because, although we have preliminary evidence of its effectiveness, we cannot explain how and why it works. Establishing a stronger research and theoretical base is essential. Researchers working in this area could also profit greatly from examining the extensive sport psychology–based literature on coaching research and theory.

Conclusion

An explosion of interest in coaching psychology has taken place in recent years, and professionals in a variety of fields are using the psychology of coaching to change the lives of people in all walks of life. However, outside of the sport domain, research into the psychology of coaching is lagging, and few efforts are being made to integrate research across the various domains where it is conducted. In addition, more research, using better designs is needed. There appears to be a great need for theories to help explain when, where, how, and why coaching may or may not be effective, as well as to help identify the key factors that may influence the coaching process. By summarizing the coaching psychology research, and by identifying future directions in the next section, it is hoped that this chapter spurs researchers to systematically examine this important area and helps coaching psychology specialists bridge the research-to-practice and practice-to-research gaps that currently exist.

Future Directions

The practice of psychologically coaching individuals for the purpose of helping them enhance performance is seemingly more popular today than at any other time in history. In addition to psychologically coaching athletes, the field has expanded to coaching individuals in numerous other settings, such as business, medicine, the arts, and the military. Although the growth of coaching psychology is extensive, efforts to conduct research and theory on the topic are lacking, with the exception of four decades of research conducted by sport psychologists on athletic coaching and emerging research in the domain of psychology and business coaching. One thing is clear, more and better research is needed.

After extensively reviewing the coaching effectiveness research in sport, Horn (2002) identified a number of future directions researchers should (p. 359) follow. First, she contends that more effort needs to be placed on developing better measures of coaching behaviors that assess dimensions like nonverbal coach behaviors or the attributions that accompany feedback coaches give to athletes. Second, the importance of examining the antecedents and consequences of coaching behaviors is emphasized. For example, in her own research, Horn and her colleagues (Horn, Lox, & Labrador, 2001) have shown that coaches form expectations of their athletes'

capabilities based on personal cues (such as gender and body size) and performance information (such as past accomplishments and skills tests). These expectations in turn influence the coach's behavior (e.g., frequency and quality of coach–athlete interaction, quantity and quality of instruction, types of feedback given), which then influences athletes' performance. Finally, athletes' performance confirms the coach's original expectations. Not only is there a need to further study this coach expectation process in the sport environment, but it would be interesting to see how it works with coaches in other settings, such as business and the arts.

In his review of the coaching behavior research in sport, Cushion (2010) also addresses the need for future research. First, he suggests that instead of focusing simply on assessing the behavior of coaches, researchers should examine how behaviors interact with coaching thoughts. Second, because so much of the existing research has been conducted in North America, studies involving coaching in and/or across cultures would be valuable. Third, researchers need to move beyond studies of head coaches and examine other levels of coaching, such as assistants, or subgroups, such as women or minority coaches. Fourth, because much of the existing coaching behavior research has examined practice environments, there is a need to examine the behaviors and actions of coaches in competitive sport environments. Fifth, because the research shows that few effective coaching behaviors (outside of instruction and reinforcement) are universal, greater efforts must be made to study coaching behaviors in specific contexts. Finally, a need exists to study how instructing individual sport coaches to self-monitor and become aware of their own actions can influence both their coaching and the performance outcomes of those with whom they work.

The review of the literature in this chapter suggests several other potentially fruitful future directions for sport coaching psychology research. First, more research examining gender differences in coaching is needed. In particular, researchers need to more often employ understudied female coaches as participants. They also need to further explore differences related to how one actually coaches male and female athletes. Interestingly, the coaching psychology research conducted in sport might serve as a good starting point for research on gender differences in coaching in other arenas. The same can be said for research on how coaching can enhance life skills, as this certainly parallels interest in coaching for personal development in nonsport settings.

The theoretically driven work of Mageau and Vallerand (2003) on how coach–athlete relationships influence athlete motivation also points to a number of future research directions. First, a need exists to test the entirety of the model that these researchers have proposed. Only then can possible reciprocal influences be examined. Second, future investigators must identify the obstacles to adopting the suggested autonomy-supportive coaching style predicted to positively enhance self-determined forms of motivation. For example, do coaches believe that controlling behaviors lead to better performance, or are they unaware of their controlling behaviors? Finally, do those athletes who are most vulnerable to controlling behaviors and in most need of them (e.g., athletes with very low intrinsic motivation) frustrate coaches to the degree that the coaches are less likely to use autonomy-supporting behaviors?

Although these suggestions for future research were proposed by investigators focused on coaching in the athletic domain, they could all be easily examined in other coaching domains, such as business, the performing arts, or education. In addition, in both the sport and general coaching psychology literatures, more intervention studies are needed to better establish causal relationships. Longitudinal studies are also needed, allowing investigators to track changes both in coach and client behaviors across phases of the coaching process. Feldman and Lankau (2005) have also outlined a number of important future directions for researchers studying general coaching psychology to consider. These include

- Examining differences between coaching and other helping relationships—career counseling, clinical therapy, business advisement, and mentoring—to determine whether differences are evident between coaches employed by individuals versus organizations
- Identifying the backgrounds and specific skills of coaches and determining if these differences influence their effectiveness

(p. 360)

- Learning more about the clients being coached and their specific needs, as well as what client characteristics and dispositions make clients more or less receptive to coaching
- Bettering our understanding of coaching outcomes by looking at both short- and long-term outcomes related to learning, behavior changes, and organizational markers

- Delineating phases of coaching and the best ways to work within those phases
- Better understanding how approaches to coaching (e.g., behaviorist, psychodynamic, systems approach) influence both positive and dysfunctional coaching effectiveness.

Currently, a variety of methods are used to study coaching psychology, and we feel this is a good development as both quantitative and qualitative research can play important roles in advancing knowledge in the area. However, we also feel that regardless of the method used, investigators need to employ more rigorous designs, consider conducting series of interrelated studies, and consider using multiple methods in the same study.

Finally, coaching psychology researchers need to apply or develop more theoretical explanations for why coaching is effective and what factors influence the coaching process. If the psychology of coaching is to advance, it is not only important that the efficacy of coaching be demonstrated, but, given the fact that human behavior results from a reciprocal interaction of personal and environmental factors, knowing why strategies operate will help practitioners more effectively coach in specific contexts.

Acknowledgments

The authors would like to thank Larry Lauer and Shane Murphy for their helpful comments on this manuscript.

References

Abraham, A., Collins, D., & Martindale, R. (2006). The coaching schematic: Validation through expert coach consensus. *Journal of Sport Sciences, 24*(6), 549–564.

Acosta, R. V., & Carpenter, L. (2012). Women in intercollegiate sport: A longitudinal, national study. Thirdy five year update, 1977–2012. Unpublished manuscript. Available for downloading at **www.acostacarpenter.org**

Amorose, A. J., & Anderson-Butcher, D. (2007). Autonomy-supportive coaching and self-determined motivation in high school and college athletes: A test of self-determination theory. *Psychology of Sport and Exercise, 8*, 654–670.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavior change. *Psychological Review, 84*, 191–215.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: Freeman.

Barling, J., Slater, F., & Kelloway, E. K. (1999). Transformational leadership and emotional intelligence: An exploratory study. *Leadership and Organization Development Journal*, 21, 157–161.

Becker, A.J. (2009). It's not what they do, it's how they do it: Athlete experiences of great coaching. *International Journal of Sports Science and Coaching, 4*(1), 93–119.

Berger, J. G., & Atkins, P. W.B. (2009). Mapping the complexity of mind: Using the subject-object interview in coaching. *Coaching: An International Journal of Theory, Research and Practice, 2*, 23–36.

Bono, J. E., Purvanova, R. K., Towler, A. J., & Peterson, D. B. (2009). A survey of executive coaching practices. *Personnel Psychology, 62*, 361–404.

Boon, A., & Gilbert, W. (2010). Using the United Nation's Millennium development goals to teach citizenship in youth soccer. *Journal of Coaching Education*, *3*(3), 37–55.

Bull, S. J. (2006). *The game plan: Your guide to mental toughness at work*. Chichester, UK: Capstone.

Burton, D., & Raedeke, T. D. (2008). Sport psychology for coaches. *International Journal of Sports Science and Coaching, 3*(2), 291–292.

Camire, M., Forneris, T., Trudel, P., & Bernard, D. (2011). Strategies for helping coaches facilitate positive youth

development through sport. *Journal of Sport Psychology in Action, 2(*2), 92–99.

Campbell, T., & Sullivan, P. J. (2005). The effect of a standardized coaching program on the efficacy of novice coaches. *Avante*, *11*, 56–68.

Chelladurai, P. (1978). *A contingency model of leadership in athletics*. Unpublished doctoral dissertation, University of Waterloo, Canada.

Chelladurai, P. (2007). Leadership in sports. In G. Tenenbaum & R. C. Eklund (Eds.), *Handbook of sport psychology* (3rd ed., pp. 113–135.). Hoboken, NJ: Wiley.

Coaching. (n.d.). In *Wikipedia*. Retrieved May 25, 2011, from **http://en.wikipedia.org/wiki/Coaching**.

Coakley, J. (2011). Youth sports: What counts as social development? *Journal of Sport and Social Issues*, *35*(3), 1–19.

Collins, K., Gould, D., Lauer, L., & Chung, Y. (2009). Coaching life skills through football: Philosophical beliefs of outstanding high school football coaches. *International Journal of Coaching Science, 3*(1), 1–26.

Conroy, D. E., & Coatsworth, J. D. (2006). Coaching training as a strategy for promoting youth social development. *The Sport Psychologist, 20*, 128–144.

Côté, J. & Gilbert, W. (2009). An integrative definition of coaching effectiveness and expertise. *International Journal of Sports Science and Coaching, 4*, 307–323.

Côté, J., Salmela, J.H., & Russell, S. (1995). The knowledge of high-performance gymnastic coaches: Methodological framework. *The Sport Psychologist, 9*(1), 76–95.

Cumming, S. P., Smoll, F. L., Smith, R. E., & Grossbard, J. R. (2007). Is winning everything? The relative contributions of motivational climate and won-lost percentage in youth sports. *Journal of Applied Sport Psychology, 19*, 322–226.

Cushion, C. (2010). Coach behaviour. In J. Lyle & Chris Cushion (Eds.). *Sports coaching: Professionalisation and* **(p. 361)** *practice* (pp. 43–61). Edinburgh, UK: Churchill Livingstone Elsevier.

DeBoer, K. J. (2004). *Gender and Competition: How men and women approach work and play differently*. Monterey, CA: Coaches Choice.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York, NY: Plenum Press.

Deci, E. L., & Ryan, R. M. (2000). The 'what' and 'why' of goal pursuits: Human needs and self-determination of behavior. *Psychological Inquiry*, *11*, 227–268.

Erickson, K., Côté, J., & Fraser-Thomas, J. (2007). Sport experiences, milestones, and educational activities associated with performance coaches' development. *The Sport Psychologist, 21*, 302–316.

Fasting, K., & Pfister, G. (2000). Female and male coaches in the eyes of female elite soccer players. *European Physical Education Review*, *6*, 91–110.

Feldman, D. C., & Lankau, M. J. (2005). Executive coaching: A review and agenda for future research. *Journal of Management*, *31*, 829–848.

Feltz, D. L., Chase, M.A., Motitz, S. A., & Sullivan, P.J. (1999). A conceptual model of coaching efficacy: Preliminary investigation and instrument development. *Journal of Educational Psychology*, *91*, 765–776.

Feltz, D.L., Short, S. E., & Sullivan, P. J. (2008). Self-efficacy in sport. Champaign, IL: Human Kinetics.

Flett, M. R., Gould, D. R., Paule, A. L., & Schneider, R. P. (2010). How and why university coaches define, identify, and recruit 'intangibles'. *International Journal of Coaching Science, 4*(2), 15–35.

Fry, M. D., & Gano-Overway, L. A. (2010). Exploring the contributions of the caring climate to the youth sport

experience. *Journal of Applied Sport Psychology, 22*(3), 294–304.

Gallimore, R., & Tharp, R. (2004). What a coach can teach a teacher, 1975–2004: Reflection and reanalysis of John Wooden's teaching practices. *The Sport Psychologist*, *18*, 119–137.

Gano-Overway, L. A., Newton, M., Magyar, T. M., Fry, M. D., Kim. M., & Guivernau, M. R. (2009). Influence of caring youth sport contexts on efficacy-related beliefs and social behaviors. *Developmental Psychology*, *45*, 329–340.

Gant, A. M., Curtayne, L., & Burton, G. (2009). Executive coaching enhances goal attainment, resilience, and workplace well-being: A randomized control study. *The Journal of Positive Psychology*, *4*(5), 396–407.

Gant, A. M., Passmore, J., Cavanagh, M. J., & Parker, H. (2010). The state of play in coaching today: A comprehensive review of the field. *International Review of Industrial and Organizational Psychology*, *210*(25), 125–167.

Gilbert, W. (2010). Understanding the change process: Valuing what it is that coaches do. *International Journal of Sports Science and Coaching*, *5*(2), 173–176.

Gilbert, W., Gallimore, R., & Trudel, P. (2009). A learning community approach to coach development in youth sports. *Journal of Coaching Education*, *2*(2), 1–21.

Gilbert, W., & Trudel, P. (2004). Analysis of coaching science research published from 1970–2001. *Research Quarterly for Exercise and Performance*, *74*(4), 388–399.

Gordan, S. (2007). Sport and business coaching: Perspectives of a sport psychologist. *Australian Psychologist*, *42*(4), 271–282.

Gould, D., & Carson, S. (2008). Personal development through sport. In H. Hebestreit, & O. Barr-Or (Eds.), *The encyclopedia of sports medicine – The young athlete* (pp. 287–301). Oxford: Blackwell Science.

Gould, D. & Carson, S. (2010). The relationship between perceived coaching behaviors and developmental benefits of high school sports participation. *The Hellenic Journal of Psychology*, *7, 298–314*.

Gould, D., & Carson, S. (2011). Young athletes perceptions of the relationship between coaching behaviors and developmental experiences. *International Journal of Coaching Science*, *5*(2), 3–29.

Gould, D., Chung, Y., Smith, P., & White, J. (2006). Future directions in coaching life skills: Understanding high school coaches' views and needs, *Athletic Insights: The Online Journal of Sports Psychology*, *18*(3). (**http://www.athleticinsight.com/Vol8Iss3/CoachingLifeSkills.htm**.)

Gould, D., Collins, K., Lauer, L., & Chung, Y. (2006). Coaching life skills: A working model, *Sport and Exercise Psychology Review*, *2*(1), 10–18.

Gould, D., Collins, K., Lauer, L., & Chung, Y. (2007). Coaching life skills through football: A study of award winning high school coaches, *Journal of Applied Sport Psychology*, *19*(1), 16–37.

Gould, D., Flett, R. M., & Lauer, L. (2012). The relationship between psychosocial developmental and the sports climate experienced by underserved youth. *Psychology of Sport and Exercise, 13*(1), 80–87.

Gould, D., Greenleaf, C., Guinan, D., & Chung, Y. (2002). A survey of U.S. Olympic coaches: Variables perceived to have influenced athlete and performance and coach effectiveness. *The Sport Psychologist*, *16*, 229–250.

Gould, D., Medbery, R., Damarjian, N., & Lauer, L. (1999). A survey of mental skills training knowledge, opinions, and practices of junior tennis coaches. *The Sport Psychologist*, *11*, 28–50.

Gordon, S. (2007). Sport and business coaching: Perspectives of a sport psychologist. *Australian Psychologist*, *42*, 271–282.

Grant, A. M., & Palmer, S. (2002). *Coaching psychology*. Meeting held at the Annual Conference of the Division of Counseling Psychology, British Psychological Society, Torquary, May 18.

Grant, A. M., Passmore, J., Cavanagh, M. J., & Helen, P. (2010). The state of play in coaching today: A comprehensive review of the field. *International Review of Industrial and Organizational Psychology, 25*, 125–167.

Griffith, C. R. (1925). Psychology and its relation to athletic competition. *Physical Education Review, 30*, 193–199.

Griffith, C. R. (1932). *Psychology of coaching*. New York, NY: Charles Scribner's Sons.

Hall, D. T., Otazo, K. L., & Hollenbeck, G. P. (1999). Behind closed doors: What really happens in executive coaching. *Organizational Dynamics*, *27*, 39–53.

Halliburton, A. L., & Weiss, M. R. (2002). Sources of competence information and perceived motivational climate among adolescent female gymnasts varying in skill level. *Journal of Sport and Exercise Psychology*, *24*, 396–419.

Hernez-Broome, G. (2004). *Impact of coaching following a leadership development program: Coaching is the key to continued development*. Paper presented at the Second ICF Coaching Research Symposium, Quebec, Canada.

Holt, N. L., Tink, L. N., Mandigo, J. L., & Fox, K. R. (2008). Do youth learn life skills through their involvement in high school sport? A case study. *Canadian Journal of Education*, *31*, 281–304.

(p. 362) Horn, T. (2002). *Advances in sport psychology* (2nd ed.). Champaign, IL: Human Kinetics.

Horn, T. (2007). *Three decades of research on coaching effectiveness: What do we know and where do we should we go?* Presentation made at the Association of Applied Sport Psychology Conference, Louisville, KY.

Horn, T. S., Lox, C., & Labrador, F. (2001). The self-fulfilling prophecy: When coaches' expectations become a reality. In J. M. Williams (Ed.), *Applied sport psychology: Personal growth to peak performance* (4th ed., pp. 63–81). Mountain View, CA: Mayfield.

Jenkins, S. (2010). Coaching philosophy. In J. Lyle & Chris Cushion (Eds.). *Sports coaching: Professionalisation and practice* (pp. 233–242). Edinburgh, UK: Churchill Livingstone Elsevier.

Jones, G. (2002). Performance excellence: A personal perspective on the link between sport and business, *Journal of Applied Sport Psychology*, *14*, 268–281.

Jones, G., & Morehouse, A. (2007). *Developing mental toughness: Gold medal strategies for transforming your business performance*. Oxford, UK: Spring Hill.

Jones, M. I., & Lavallee, D. (2009). Exploring the life skills needs of British adolescent athletes. *Psychology of Sport and Exercise*, *10*, 159–167.

Karas, D., & Spada, M. M. B. (2009). Brief cognitive-behavioral coaching for procrastination: A case series. *Coaching: An International Journal of Theory, Research and Practice*, *2*, 44–53.

Kent, A., & Sullivan, P. J. (2003). Coaching efficacy as a predictor of university coaches' commitment. *International Sports Journal*, *17*, 246–258.

Kilty, K. (2006). Women in coaching. *The Sport Psychologist*, *20*, 222–234.

Lacroix, C., Camire, M., & Trudel, P. (2008). High school coaches' characteristics and their perspectives on the purpose of school sports participation. *International Journal of Coaching Science*, *2*(2), 23–42.

Lee, K. S., Malete, L., & Feltz, D. L. (2002). The strength of coaching efficacy between certified and noncertified Singapore coaches. *International Journal of Applied Sport Science*, *14*, 55–67.

Linley, P. A., & Harrington, S. (2005). Positive psychology and coaching psychology: Perspectives on integration. *The Coaching Psychologist, 1*, 13–14.

Loehr, J., & Schwartz, T. (2001). The making of a corporate athlete. *Harvard Business Review*, *79*, 120–128.

Lyle, J. (1999). Coaching philosophy and coaching behavior. In N. Cross, & J. Lyle (Eds.). *The coaching process:*

Principles and practice of sport (pp. 15–46). Oxford, UK: Butterworth-Heinemann.

Lyle, J. (2010). Coaches' decision making: A naturalistic decision making analysis. In J. Lyle & C. Cushion (Eds.), *Sports coaching: Professionalisation and practice* (pp. 27–42). Edinburgh, UK: Churchill Livingstone Elsevier.

MacKie, D. (2007). Evaluating the effectiveness of executive coaching: Where are we now and where do we need to be? *Australian Psychologist*, *42*, 310–318.

Mageau, G. A., & Vallerand, R. J. (2003). The coach-athlete relationship: A motivational model. *Journal of Sport Sciences*, *21*, 883–904.

Marshall, D. (2001). Developing the next generation of women coaches. *Canadian Journal for Women in Coaching Online, 1*(4), 1–8.

Martens, R. (2004). *Successful coaching*. Champaign, IL: Human Kinetics.

Martin, S. B., Jackson, A. W., Richardson, P. A., & Weiller, K. H. (1999). Coaching preferences of adolescent youths and their parents. *Journal of Applied Sport Psychology, 11*(2), 247–262.

McCallister, S. G., Blinde, E. M., & Weiss, W. M. (2000). Teaching values and implementing philosophies: Dilemmas of the youth sport coach. *The Physical Educator, 57*, 34–45.

McCullick, B., Cummings, R. L., & Schempp, P. (1999). The professional orientations of expert golf instructors. *International Journal of Physical Education, 36*, 15–24.

McCullick, B., Schempp, P., Hsu, S. H., Jung, J. H., Vickers, B., & Schuknecht, G. (2006). An analysis of working memories of expert sport instructors. *Journal of Teaching in Physical Education*, *25*(2), 149–165.

Murphy, S. (1996). *The achievement zone*. New York, NY: Putnam.

Myers, N. D., Vargas-Tonsing, T. M., & Feltz, D. L. (2005). Coaching efficacy in intercollegiate coaches: Sources, coaching behavior, and team variables. *Psychology of Sport and Exercise*, *8*, 182–195.

Nash, C. S., Sproule, J., & Horton, P. (2008). Sport coaches' perceived role frames and philosophies. *International Journal of Sport Science and Coaching, 3*(4), 539–554.

Northhouse, P. G. (2010). *Leadership: Theory and practice* (5th ed.). Thousand Oaks, CA: Sage.

Palmer, S. (2005). The proposal to establish a special group in coaching psychology. *The Coaching Psychologist*, *1*, 5–12.

Palmer, S., & Whybrow, A. (2005). The proposal to establish a special group in coaching psychology. *The Coaching Psychologist, 1*, 3–11.

Passmore, J., & Brown, A. (2009). Coaching non-adult students for enhanced examination performance: A longitudinal study. *Coaching: An International Journal of Theory, Research and Practice*, *2*, 54–64.

Pritchard, J. (2009). Tools for supporting intuition. *Coaching: An International Journal of Theory, Research and Practice, 2*, 37–43.

Reade, I., Rodgers, W., & Norman, L. (2009). The under-representation of women in coaching: A comparison of male and female Canadian coaches at low and high levels of coaching. *International Journal of Sport Sciences and Coaching, 4*, 505–520.

Salmela, J. H. (1995). Learning from the development of expert coaches. *Coaching and Sport Science Journal*, *2*(2), 3–13.

Salmela, J. H., Draper, S. P., & Desjardins, G. (1994). Transitioning phases of expert ice and field hockey coaches' careers. *Access to active living* (pp. 570–575). Victoria, CA: University of Victoria.

Scanlan, T. K., & Lewthwaite, R. (1986). Social psychological aspects of competition for male youth sport

participants: Predictors of enjoyment. *Journal of Sport Psychology, 8*, 25–35.

Schempp, P. G., & McCullick, B. (2010). Coaches expertise. In J. Lyle & C. Cushion (Eds.), *Sports coaching: Professionalisation and practice* (pp. 221–232). Edinburgh, UK: Churchill Livingstone Elsevier.

Schempp, P. G., McCullick, B. A., & Busch, C. A., Webster, C., & Shannen, I. S. (2006). The self-monitoring of expert sport instructors. *International Journal of Sports Science and Coaching*, *1*(1), 25–35.

Schempp, P. G., McCullick, B., Busch, C. A., Webster, C., & Mason, I. S. (2010). The self-monitoring of expert sport instructors. *International Journal of Sports Science and Coaching*, *1*(1), 25–35.

Smith, R. E., & Smoll, F. L. (1989). Leadership behaviors in sport: A theoretical model and research paradigm. *Journal of Applied Social Psychology, 19*(18), 1522–1551.

(p. 363) Smith, R. E., Smoll, F. L., & Barnett, N. P. (1995). Reduction of children's sport performance anxiety through social support and stress-reduction training for coaches. *Journal of Applied Developmental Psychology, 16*, 125–142.

Smith, R. E., Smoll, F. L., & Cummings, S. P. (2007). Effects of a motivational climate intervention for coaches on young athletes' sport performance anxiety. *Journal of Sport and Exercise Psychology, 29*, 39–59.

Smith, R. E., Smoll, F. L., & Curtis, B. (1979). Coach effectiveness training: A cognitive-behavioral approach to enhancing relationship skills in youth sport coaches. *Journal of Sport Psychology, 1*, 59–75.

Smoll, F. L., & Smith, R. E. (2002). Coaching behavior research and intervention in youth sports. In F. L. Smoll & R. E. Smith (Eds.), *Children and youth in sport: A biopsychosocial perspective* (2nd ed., pp. 211–233). Dubuque, IA: Kendall/Hunt.

Smoll, F. L., Smith, R. E., Barnett, N. P., & Everett, J. J. (1993). Enhancement of children's self-esteem through social support training for youth sport coaches. *Journal of Applied Psychology, 78*, 602–610.

Smith, R. E., Smoll, F. L., & Cummings, S. P. (2007). Effects of a motivational climate intervention for coaches on young athletes' sport performance anxiety. *Journal of Sport and Exercise Psychology, 29*(1), 39–59.

Spense, G. B., & Gant, A. (2005). Individual and group life coaching: Initial findings from a randomized controlled trial. In M. Cavanagh, A. M. Gant, & T. Kemp (Eds.), *Coaching: Vol. 1 Theory, research and practice from the behavioural sciences* (pp. 27–42). Brisbane, AU: Australian Academic Press.

Stern, L. R. (2004). Executive coaching: A working definition. *Consulting Psychology Journal: Practice and Research, 56*, 154–162.

Tharp, R. G., & Gallimore, R. (1976). What a coach can teach a teacher. *Psychology Today*, *9*, 74–78.

Theeboom, M., De Knoop, P., & Weiss, M. R. (1995). Motivational climate, psychosocial responses, and motor skill development in children's sport: A field-based intervention study. *Journal of Sport and Exercise Psychology, 17*, 294–311.

Trudel, P., & Gilbert, W. D. (2006). Coaching and coaching education. In D. Kirk, M. O'Sullivan, & D. McDonald (Eds.), *Handbook of physical education* (pp. 516–539). London, UK: Sage.

Trudel, P., Gilbert, W., & Werthner, P. (2010). Coaching education effectiveness. In J. Lyle & C. Cushion (Eds.), *Sports coaching: Professionalisation and practice* (pp. 135–152). Edinburgh, UK: Churchill Livingstone Elsevier.

Tuffey, S. (1995). *Coach perceptions of psychological characteristics and behaviors of male and female athletes and their impact on coach behaviors*. Unpublished doctoral dissertation, University of North Carolina, Greensboro.

Vella, S. A., Oades, L. G., & Crowe, T. P. (2010). The application of coach leadership models to coaching practice: Current state and future directions. *International Journal of Sports Science and Coaching, 5*(3), 425–434.

Weinberg R. S., & Gould, D. (2011). Foundations of sport and exercise psychology (5th ed.). Champaign, IL: Human

Kinetics.

Wiese-Bjornstal, D. M. (2007). Psychological dimensions of girls' physical activity participation. In M. J. Kane & N. M. LaVoi (Eds.), *The 2007 Tucker Center research report—Developing physically active girls: An evidence based multidisciplinary approach* (pp. 7–28). Minneapolis, MN: The Tucker Center for Research on Girls & Women in Sport, University of Minnesota.

Weiss, M. R., Ebbeck, V., & Horn, T. S. (1997). Children's self-perceptions and sources of physical competence information: A cluster analysis. *Journal of Sport and Exercise Psychology, 19*(1), 52–70.

Whitmore, J. (2009). *Coaching for performance* (4th ed.). Boston, MA: Nicholas Brealey Publishing.

Notes:

(1.) Percentages in all categories do not add up to 100% because respondents could select more than one response category.

Daniel Gould

Daniel Gould, Institute for the Study of Youth Sports, Michigan State University, East Lansing, Michigan

E. Missy Wright

E. Missy Wright, Institute for the Study of Youth Sports, Michigan State University, East Lansing, Michigan