

Sources and Types of Confidence Identified by World Class Sport Performers

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This study identified the sources and types of confidence salient to 14 (7 male, 7 female) successful World Class athletes. Nine sources of confidence were identified: Preparation, performance accomplishments, coaching, innate factors, social support, experience, competitive advantage, self-awareness, and trust. A testament to the multi-dimensional nature of sport confidence, six types of sport confidence were also identified: skill execution, achievement, physical factors, psychological factors, superiority to opposition, and tactical awareness. Gender was related to both the sources of confidence and the subsequent types of confidence experienced by the athletes. For example, females placed more importance on good personal performances than males who derived confidence from winning. Results were discussed in the context of previous sport confidence literature and implications for sport psychology and coaching practices were drawn.

Self-confidence has consistently been identified as an important influence on athletic performance (e.g., Jones & Hanton, 2001; Vealey, 2001). The conceptual paradigm adopted for the majority of the self-confidence research has been self-efficacy theory (Bandura, 1977), originally developed within the framework of behavior causation. Bandura (1997) proposed that self-referent thought activates cognitive, motivational, and affective processes that govern the translation of knowledge and abilities into action. Thus, self-efficacy (one's belief that

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a certain level of performance can be attained) is not concerned with how many skills an individual may possess, but is instead concerned with the performers' perceptions of their ability to succeed in a given situation at a given time (Hardy, Jones, & Gould, 2001). Hence, different people with similar skills, or indeed the same person under different circumstances, might perform poorly, adequately, or exceptionally well depending upon fluctuations in their personal efficacy beliefs. Consequently, efficacy beliefs are an important contributor to performance accomplishments, whatever the underlying skill of the performer (Bandura, 1997).

Advances in a field are best achieved when the phenomena of interest are rooted in theories that specify their determinants (Bandura, 1990). Efficacy expectations are thought to be predicted by six principle sources of information (Maddux & Gosselin, 2003): Enactive mastery experiences, vicarious experience, imaginal experiences, verbal persuasion, physiological states, and emotional states. Performance accomplishments are thought to elicit the most powerful effects on self-efficacy since they are based upon personal mastery experiences (Hardy et al., 2001). Vealey, Hayashi, Garner-Holman, and Giacobbi (1998) questioned whether these efficacy predictors were the most salient to athletes within the sporting context. They proposed that athletes rely on additional sources of confidence influenced by social, organizational, and/or demographic factors. Consequently, the reconceptualized model of sport confidence (Vealey et al., 1998) identified the sources of confidence that were specifically salient to athletes. These sources included: mastery (i.e., mastering or improving personal skills), demonstration of ability (i.e., exhibiting skills or demonstrating superiority to opposition), physical/mental preparation (i.e., optimal physical and mental preparation), physical self-presentation (i.e., an athlete's perception of his/her physical self), social support (i.e., positive feedback and encouragement from coaches, team-mates, and/or friends), vicarious experience (i.e., seeing someone else perform successfully), coach's leadership (i.e., an athlete's belief in the coaches' skills in decision-making and leadership), environmental comfort (i.e., feeling comfortable in the competitive environment), and situational favorableness (i.e., the athlete perceives something has happened in the sporting situation to increase his or her chances of success). Vealey et al.'s proposal of these preliminary sources of sport confidence was based upon a review of literature and deductions by the investigators. These sources then provided the initial organizational structure from which to query the participants.

Beyond the identification of sources of sport confidence, Vealey et al. (1998) also investigated which sources were the best predictors of sport-confidence levels. Higher levels of sport confidence were related to focusing on physical/mental preparation for competition, whereas lower levels of sport confidence were related to focusing on body image. Furthermore, athlete characteristics and the organizational culture of competitive sport were found to influence the development and manifestation of confidence in athletes. For example, social support was a more important source of confidence for female athletes than males. Physical self-presentation was also identified as more important for female college athletes than males, whereas male and female high school athletes reported that physical self-presentation was the least important source of their confidence.

Several researchers have investigated gender effects in sport confidence and a relatively consistent finding indicates male athletes demonstrate higher levels of confidence than females (e.g., Krane & Williams, 1994; Lirgg, 1991; Vargus-Tonsing & Bartholomew, 2006). Research examining the pre-competition temporal patterning of self-confidence in male and female athletes endorses differences not only in confidence levels, but also differential changes in self-confidence during the pre-competition period (Jones & Cale, 1989; Jones, Swain, & Cale, 1991). Furthermore, different antecedents have been found to predict self-confidence in males and females (Jones et al., 1991). Significant predictors in females have been associated with personal goals and standards, whereas significant predictors in males have been associated

with interpersonal comparison and winning (Gill, 1988; Jones et al., 1991). However, research in this area is sparse, thus the notion that confidence may vary as a function of gender warrants further investigation.

Moreover, Vealey et al.'s (1998) conceptualization of sport confidence, the model of sport confidence, and preliminary sources of sport confidence were based upon perceptions of high school and collegiate athletes and cannot be readily generalized to other athlete groups. For example, in a study examining the sources of sport confidence in master athletes, Wilson, Sullivan, Myers, and Feltz (2004) failed to replicate the proposed 9-factor structure of the Sources of Sport Confidence Questionnaire (SSCQ; Vealey et al., 1998), suggesting potential inconsistencies between different athlete groups. Consequently, research to investigate sport confidence across differing participation levels is urgently required.

One of the functions of sport psychology outlined by Griffith (1925) over 80 years ago was that experienced and successful athletes and coaches be systematically studied for the purposes of identifying the psychological principles they employ, so that these principles can then be disseminated to inexperienced and less successful coaches and athletes. Few studies have specifically explored sport confidence in World Class sport performers. Those studies that do exist (e.g., Durand-Bush & Salmela, 2002; Gould, Dieffenbach, & Moffett, 2002; Gould, Guinan, Greenleaf, Medbery, & Peterson, 1999; Greenleaf, Gould, & Dieffenbach, 2001; Orlick & Partington, 1988) are limited in number and have been designed to explore a wide variety of factors in relation to performance and psychological development. Consequently, confidence per se has not been explored in-depth with an elite sample group. This is somewhat surprising given that athletes who have not performed to expectations on an Olympic stage have often attributed their underperformance to a lack of confidence (Orlick & Partington, 1988). Indeed, research has consistently shown that skills can be overruled by self-doubts, causing even the most skilled individuals to perform poorly under circumstances that undermine their belief in themselves (e.g., Bandura & Jourden, 1991; Wood & Bandura, 1989). The organizational culture of World Class sport is likely to differ significantly from that of high school, college, and master athletes previously examined, and World class athletes are likely to be subject to additional organizational stressors not present in lower level competition (cf. Fletcher, Hanton, & Mellalieu, 2006). Indeed, confidence levels can be susceptible to instability, particularly at the Olympic level (Gould et al., 1999), and the findings of Vealey (1998) imply that this might be a function of the sources upon which that confidence is based. Thus, by extending the examination of sources of sport confidence to World Class athletes, we might achieve a better understanding of the way in which the sociocultural context, organizational culture, and individual differences such as gender, might influence the development of confidence in athletes successful on the World Class stage.

The conceptualization of sport confidence as specific and unique to sport has enhanced understanding in the field of sport psychology. However, as advocated by Vealey (2001), more research is also needed to fully understand how self-confidence is manifested in the unique context of sport, including the relevance of various dimensions, or types of sport confidence. In contrast to early conceptualizations of sport confidence as a unidimensional construct (e.g., Vealey, 1986), emerging theory and research supports the notion of confidence as a multi-dimensional construct (Maddux & Lewis, 1995). In a recent study designed to define and conceptualize the term 'mental toughness,' self belief emerged as being the most important attribute of the mentally tough performer (Jones, Hanton, & Connaughton, 2002). This self-belief had two dimensions; 'belief in ability to achieve goal' and 'believing that you are different to and therefore better than your opponents.' Indeed, self-efficacy theory recognizes that human competencies are developed and manifested in numerable different forms and efficacy beliefs are thought to be differentiated across major systems of expression within activity domains (Bandura, 1977). Furthermore, a high sense of self-efficacy in one

activity domain is not necessarily accompanied by high self-efficacy in other spheres of activity (Hofstetter, Sallis, & Hovel, 1990). Consequently, personal efficacy is viewed as a multifaceted phenomenon rather than as a global disposition (Bandura, 1997). Exploration and identification of different types of confidence would lend support for the conceptualization of sport confidence as a multi-dimensional construct, and might provide a useful insight for interventions designed to enhance sport confidence.

This study was designed to examine sport confidence and its development in athletes competing on the World Class stage. One purpose of the present study was to identify the sources of sport confident salient to athletes competing on the World Class stage. The second purpose of this study was to explore possible types of confidence necessary to succeed in sport (i.e., identify what athletes are confident about). Qualitative methods of enquiry enable researchers to develop an in-depth understanding of the participants' personal constructs and experiences from their perspective (Ezzy, 2002). Since the purpose of the present study was to learn from World Class sport performers about the sources and types of confidence they utilized, qualitative interviews in which the athletes' sources and types of confidence were allowed to emerge inductively were deemed the most appropriate method of data collection.

METHOD

Participants

With institutional ethics approval, 14 athletes (7 males, 7 females) aged between 21 and 48 years (31.2 ± 8.4 years) were interviewed. Thirteen of the athletes had medalled in at least one major championship (i.e., Olympic Games, World Championship and/or World Cup), and the remaining athlete was the current world record holder in his or her discipline. The athletes had competed at their highest level (Olympic and/or World Class) for between 5 and 16 years (10.4 ± 3.6 years), and included two team sport participants (rugby and hockey), and 12 athletes who participated in eight different individual sports (Diving, $n = 1$; athletics, $n = 2$; taekwondo, $n = 1$; judo, $n = 2$; bob-skeleton, $n = 1$; speed-skating, $n = 1$; modern pentathlon, $n = 2$; and swimming, $n = 2$). To familiarize the participants with the process of the interview and maximize the retrieval of in-depth data, each athlete was sent a summary schedule of the interview prior to the interview date (cf. Hanton & Connaughton, 2002; Thomas, Hanton, & Maynard, 2007). It was thought that allowing the participants to reflect upon their most confident career moments prior to the interview taking place would assist in the recovery of information. Participants gave their written consent for the interview to be audio taped so that a typed transcription could be produced for later review.

Procedures

Qualitative methods require that the researcher balance the use of what is already known with discovery from the data (Morse & Richards, 2002). A thorough review of the sport confidence literature provided the rationale for the present study. The information pertaining to sources of sport confidence was then summarized and bracketed (set aside) prior to data collection. Given the exploratory nature of the topic, an open-ended, semi-structured interview¹ (Patton, 2002) was conducted by the primary researcher with each athlete. Consequently, the interviewer followed an interview guide but allowed the natural flow of the conversation to dictate the direction of questioning (e.g., Patton, 2002). On conclusion of the interview, all participants had been asked the main questions from the interview guide.

¹A copy of the interview guide is available from the first author.

At the onset of each interview, standardized introductory comments were provided pertaining to the purpose of the study, the use of data, and issues regarding confidentiality and anonymity. To control for guessed responses, participants were reminded that there were no right or wrong answers, to take their time responding to questions, and to tell the interviewer if they could not remember something rather than guess (Hindley, 1979; Moss, 1979). The interview began with general questions about sport confidence (e.g., the athlete's perception of sport confidence). However, since the purpose of the interviews was to derive information about each athlete's personal constructs and experiences, a standard definition of confidence was not provided (cf. Jones et al., 2002). Next, the focus of the interview questions turned to the athlete's sources of sport confidence (i.e., Where do you think your confidence in yourself as an athlete comes from?) and the types of confidence they possessed (i.e., Can you give me some specific examples of the types of things you are confident about?). None of the athletes experienced any difficulty in making the distinction between sources and types of confidence so no further elaboration was provided. The third section required each participant to describe the time that they had felt most confident going into an important competition. Again, they were asked about their sources and types of confidence in this situation. The final section discussed the interview experience and any other important information that might have been overlooked during the process.

Clarification and elaboration probes were used throughout the interview to ensure an accurate and in-depth understanding of what the participants were describing, and to create a consistent level of depth across the interviews (Patton, 2002). The interviews lasted between 45 and 135 minutes, were tape recorded in their entirety, and yielded 307 single-spaced typed pages.

Three pilot interviews with international representative performers were conducted prior to data collection. Minor changes were made to some of the interview questions to enhance clarity. All athletes who participated in the pilot study also confirmed that the interview had exhausted all areas relating to their sources and types of confidence in sport.

Analysis

Recent literature has suggested that qualitative sport-based researchers need to embrace questions of an epistemological or philosophical nature (Biddle, Markland, Gilbourne, Chatzisarantis, & Sparkes, 2001). A requisite for qualitative research is that the research question sets the goals for the outcome of the project. The purpose of the present study was to explore and describe the sources and types of confidence identified by successful World Class sport performers, outside the limits of existing models and measures. Such an approach attempts to seek patterns rather than create theories and does not conform to one of the recognized qualitative methods of theorizing analysis (Morse & Richards, 2002).

All interviews were transcribed verbatim by the primary author and content analyzed by the four investigators following procedures recommended by Miles and Huberman (1994) and successfully applied to sport psychology research (e.g., Gould et al., 2002; Greenleaf et al., 2001). Each author independently read and re-read the 14 interview transcripts and manually identified all the raw data responses representing a source (i.e., where the athlete derived their confidence from) or type of confidence (i.e., what the athlete was confident about). The raw data responses were then organized into patterns of data to create more meaningful sub-themes (e.g., confidence derived from structured goal-setting), higher-order themes (e.g., confidence derived from mental preparation), and then global dimensions (e.g., confidence derived from preparation). Although these were allowed to emerge from the data inductively, they were subsequently verified through deductive methods ensuring they existed in the raw transcripts

(c.f., Hanton & Jones, 1999; Thomas et al., 2007). This entire process was repeated by the primary author as a means of verifying the findings.

To ensure trustworthy and credible data, the sub-themes, higher-order themes, and global dimensions were validated during a focus group meeting in which the primary author presented her findings to the remaining three investigators. When inconsistencies or differences arose between the investigators, a discussion ensued until disagreements were resolved and consensus reached (Greenleaf et al., 2001; Sparkes, 1998). As advocated by Greenleaf et al. (2001), no inter-rater reliability statistics were computed as the goal of the analysis was to establish an understanding of the sources and types of confidence utilized by successful World Class performers, not to test the four investigators' ability to identify common themes.

RESULTS

The results are presented in two parts: First, the sources of confidence used by World Class athletes are outlined. Second, the types of confidence identified by these athletes are presented. In accordance with previous research (e.g., Gould et al., 2002; Greenleaf et al., 2001) the number of male and female athletes citing each raw data response, sub-theme, higher-order theme, and global dimension are shown in brackets (M/F). Tables 1 and 2 provide a summary of these results with the smallest units of data omitted. Although frequency of response does not determine the importance of the response, it highlights the sources and types that are more likely to be transferable across an elite athlete population. The frequencies and descriptive text are provided together to enable readers to reach their own conclusions regarding the applicability of the findings for use with other athletes in other settings.

Sources of Confidence

The sources of sport confidence identified by the athletes were categorized into nine global dimensions representing preparation, performance accomplishments, coaching, social support, innate factors, experience, competitive advantage, trust, and self-awareness. The results indicated that successful World Class athletes generate confidence primarily from preparation, performance accomplishments, and coaching (see Figure 1), and that the sources of confidence used by these athletes are influenced by gender.

Preparation

All of the 14 athletes highlighted the importance of good physical preparation, as one Olympic gold medallist highlighted: "For me there was no doubt at all that when I felt confident it was because I was physically in very good condition." Ultimate physical training included responses pertaining to effort, good physical training/condition, program, and skill repetition. As one athlete highlighted: "If I do things correctly in training and get things like skills and techniques right, then I become more confident of how I'm gonna perform."

Eleven athletes also made reference to mental preparation such as identifying and rectifying weaknesses, and structured goal setting. Indeed, "Doing things in a structured, ordered way" facilitated the achievement of goals, which further contributed to the athletes' feelings of confidence. The discussion of mental preparation ranged from general comments, such as "I was a good trainer so that was a good mindset," to full descriptions about mental training practice, for example:

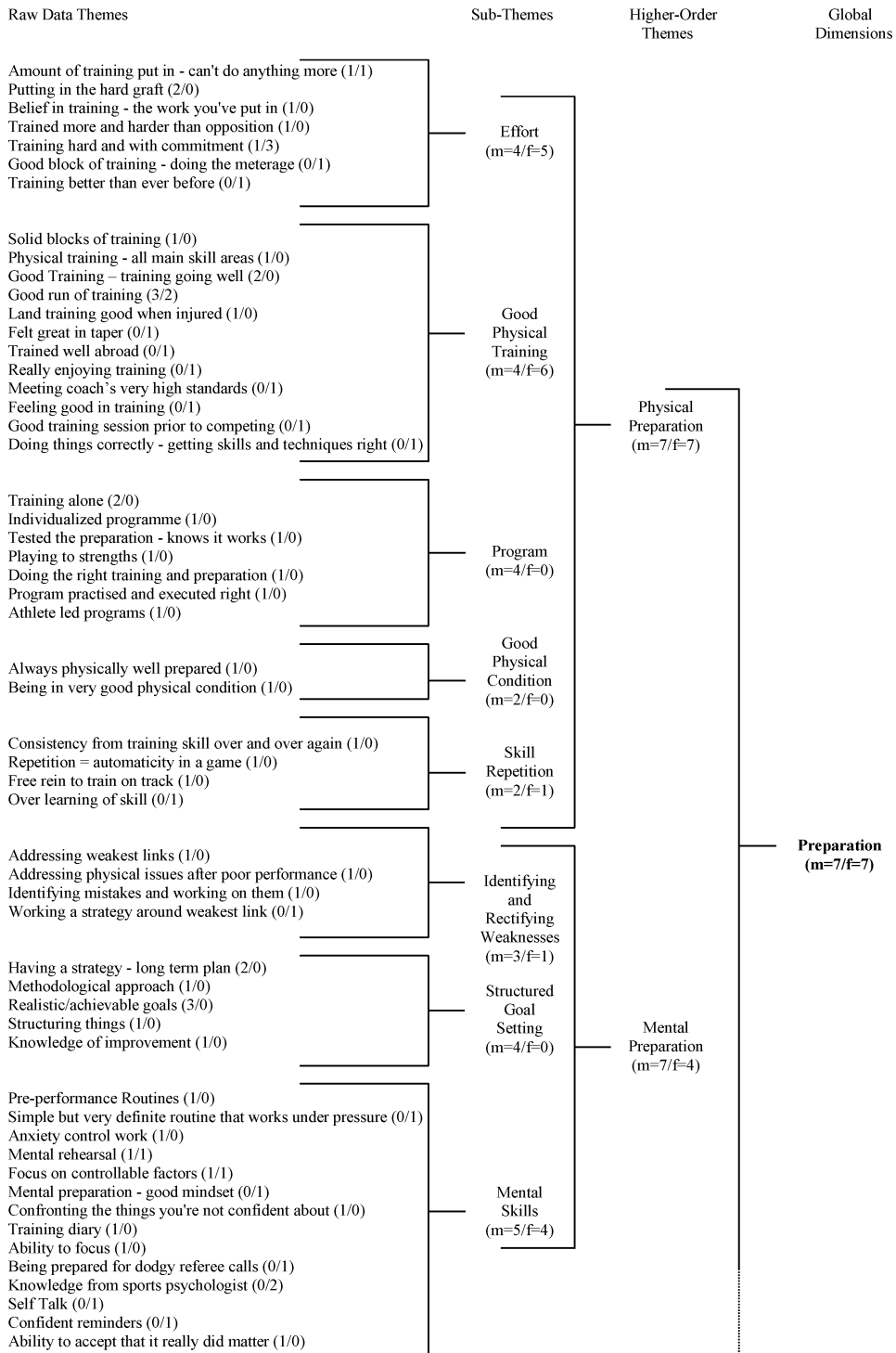


Figure 1. Themes and categories for sources of sport confidence identified by World Class sport performers (Continued).

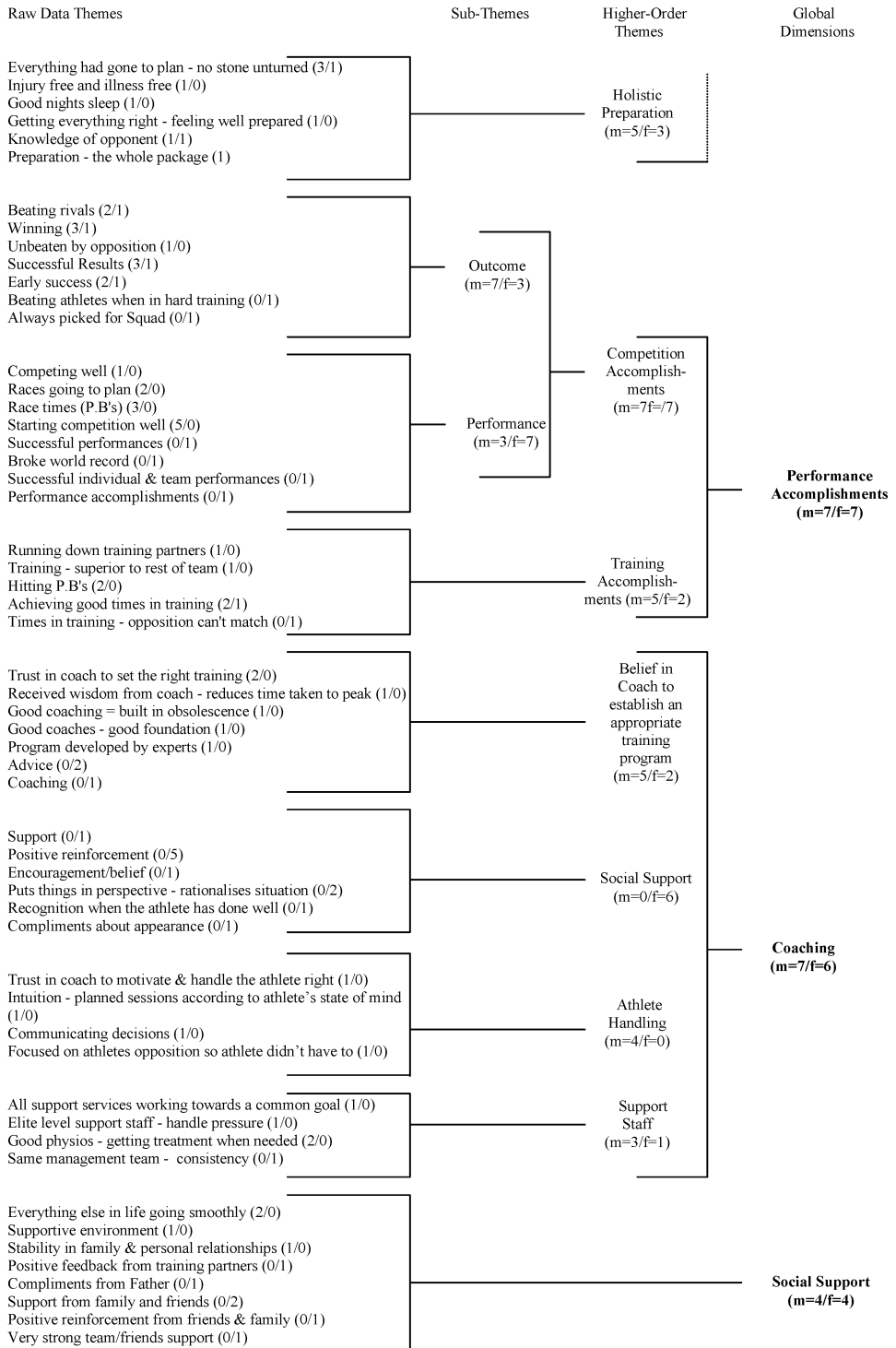


Figure 1. (Continued)

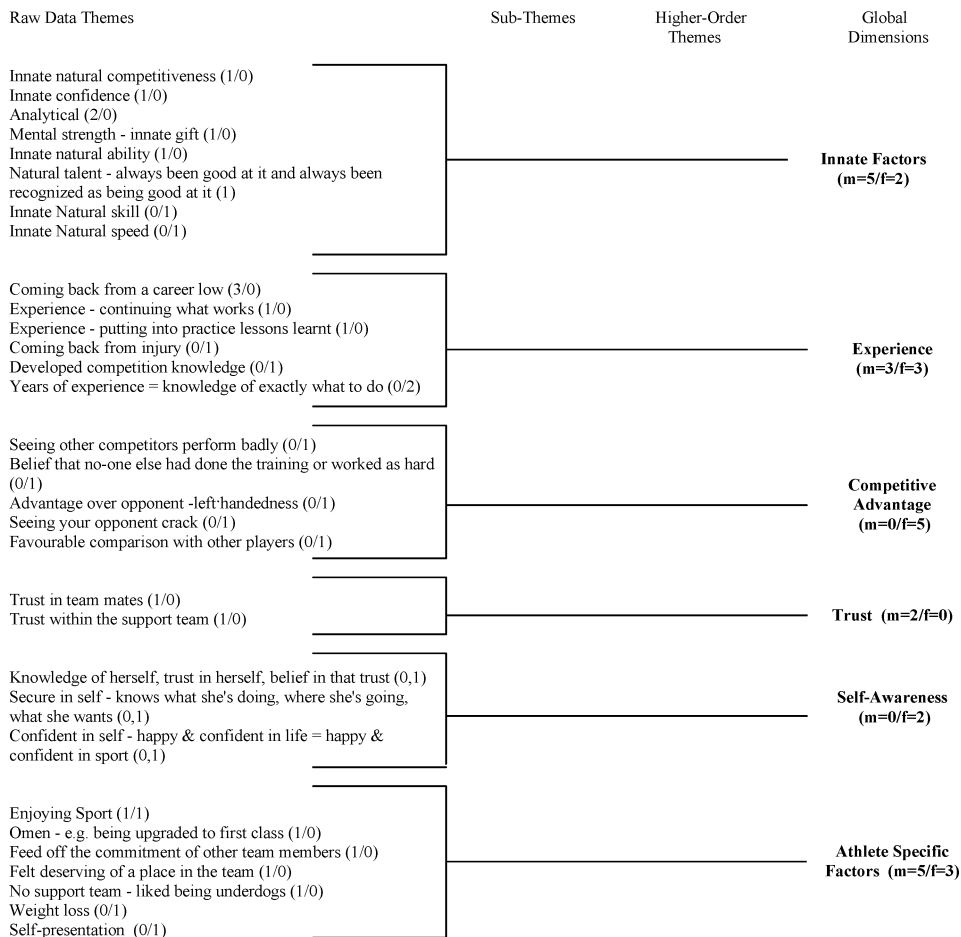


Figure 1. (Continued)

I do anxiety-control work and visual-imagery work which helps to make me more confident with my dives. I also use best-performance imagery all the time in the lead-up to a major competition. I go through my pre-dive routine with my psychologist and I visualize myself doing my dives to the best of my ability and that helps. I've done that right before competing at the World championships and that worked well as a confidence booster. Goal setting, and just generally structuring things and ignoring things I can't control and concentrating on the things I can control also makes me more confident and less distracted by other stuff.

Evidence of improvement further facilitated feelings of confidence, as one athlete highlighted: "Confidence comes from meeting the milestones we've set as coach and athlete and having evidence of the progress." Thus, training logs were an integral part of preparation:

I think the biggest thing is that most athletes keep training diaries, and to build your confidence you look at the training diaries, see the weeks and weeks and weeks of training you've done, so then when you stand on the start line you believe that you couldn't have done anymore.

Table 1
Sources of Sport Confidence Identified by Successful World Class Sport Performers

Source of confidence	Number of athletes Citing Source (N = 14)	Total% of athletes
Preparation	14 (7/7)	100%
Physical Preparation	14 (7/7)	100%
Mental Preparation	11 (7/4)	76%
Holistic Preparation	8 (5/3)	57%
Performance Accomplishments	14 (7/7)	100%
Competition Accomplishments	14 (7/7)	100%
Training Accomplishments	5 (5/2)	50%
Coaching	13 (7/6)	93%
Belief in Coach to establish appropriate training program	7 (5/2)	50%
Athlete Handling	4 (4/0)	29%
Support Staff	4 (3/1)	29%
Social Support	6 (0/6)	43%
Advice	4 (3/1)	29%
Social Support	8 (4/4)	57%
Innate Factors	7 (5/2)	50%
Experience	6 (3/3)	43%
Competitive Advantage	5 (0/5)	36%
Trust	2 (2/0)	14%
Self Awareness	2 (0/2)	14%
Athlete Specific Factors	7	50%

Note: Numbers in parentheses are (M/F).

Five male athletes and three female athletes also described a holistic approach to their preparation which enabled them to approach competition with maximum confidence. In addition to physical and mental training, a holistic approach included video analysis, vision training, nutritional advice, arranging hotels and transport, and getting treatment (i.e., massages) when needed. As the rugby World Cup winner recalled:

If you fully prepare to the best of your abilities and you leave no stone unturned, you have ultimate confidence when you go into a game that you've done everything you can possibly do to win . . . once you've got no excuses then you do go out there onto the pitch knowing that you're gonna win.

Performance Accomplishments

Performing successfully in competition was a source of confidence for all athletes. All male athletes (one team player, and six individual sports participants) highlighted competition outcomes as a source of confidence, and it was evident from the athlete's responses that successful results strengthened the athlete's feelings of confidence and contributed to future successful performances. One World Cup winner highlighted: "The confidence boost for us was the fact that Australia hadn't beaten us in four years. We knew that we could play Australia week in week out and we could beat them." In contrast, only three males derived confidence from competition performances. The results were reversed for the female athletes with three of the athletes citing competition outcomes as a source of confidence, and all seven citing competition performances, such as starting a competition well, or achieving a personal best time.

Training accomplishments, such as performing better than training partners, or achieving 'personal bests' with regard to times, weights, and/or repetitions were also identified as a source of confidence by seven of the athletes (five male, two female), one swimmer highlighted:

We'd just done a pretty hard session and my coach said at the end of the session "100 max from a push" . . . I was only a second off my British record, from a push, so now going into next week I'm gonna remember that when I'm standing behind the block. . . So for me training is a major issue in my confidence.

Coaching

The coach was identified as a source of confidence by 13 of the athletes interviewed (seven male, six female). Three of the female athletes identified coaching advice as a source of confidence, whereas all six derived confidence from the social support of their coach. Raw data responses related to encouragement, positive feedback/reinforcement, and compliments. One of the swimmer's stated:

My coach is a very big source of confidence. He doesn't praise very much so when he does you know it means something, but I think he's on to the fact now that I'm not that confident so he blows a bit of air up my backside every now and again.

In contrast, five of the male athletes derived confidence from a belief in their coach to establish an appropriate training program and were seemingly less reliant on their coach for social support, as one Olympic silver medallist explained:

I think I had a very good relationship with my coach at the time and he gave me confidence . . . I didn't question what we were doing, I just bought into the program, I bought into my coach's ability to make me perform.

Nevertheless, the male athletes recognized that their coach was influential to their athletic success and four of the male athletes cited sources of confidence relating to the way in which they were handled by their coach. For example, one track athlete stated; "Your coach is instrumental in your success, from setting the right training, to motivating you, everything is about how he or she handles that person." Three of the male athletes also identified support staff as a source of confidence in terms of "providing treatment when necessary," "handling pressure," and "working towards a common goal."

Social Support

Eight of the 14 athletes (four male, four female) derived confidence from the social support of their family, partners and/or friends, both during competition and preparatory training phases. This was characterized by phrases such as:

I think your social life, your relationships and your family situation has a massive impact . . . I think if you're in a very volatile relationship that's very up and down, very exciting, then that will ultimately affect your performance because there's no stability there, whereas if you're in a more solid relationship you're gonna get the support that you need . . . I've always taken that for granted until about three years ago when I had a bad relationship because that was the start of my situation with being unconfident.

Innate Factors

Five male athletes and two females believed that they were born with some innate ability (i.e., an analytical personality, innate natural competitiveness, innate confidence, innate mental strength, innate natural ability, and innate natural skill/speed) that facilitated their sporting success. As one judo World Champion stated:

I think I had the ability to block things out and that's important. I would be more nervous two to three weeks before a major event than I was the day before or the day of, something used to click in and I could cope with it. There's not many people who can do it . . . I think it's something you can train, I think it's something you can develop and improve, but I think it's something that you are born with, I think it's a gift, I really believe that . . . some people have just got that mindset to be stronger, mentally.

Competitive Advantage

Five of the female athletes derived confidence from a perceived competitive advantage such as seeing their competitors perform badly or crack under the pressure of competition. One of these athletes indicated, "It's all in the face and the confidence comes with that, seeing your opponent crack."

Experience

Six of the participants (three male, three female) generated confidence from their athletic experiences and the increased understanding and self-awareness they developed as a result. For example, four athletes (three male, one female) spoke about the confidence they gained from building back up from a career low, as one athlete highlighted:

I'd been so low so everywhere I looked it was just positive; everywhere I looked it was just better than it was before. I was just climbing that hill, or mountain, whatever you wanna think of it as, and I was just going up and up and up . . . what pushes you back makes you stronger and that made me so much more confident and so much stronger as an athlete mentally.

Trust

Two of the male athletes (one team player, one individual sport participant) identified trust as a source of confidence. One of these athletes referred to trust within the support team, while the other referred to "the belief you have in your teammates to perform to the same standard as you want to achieve."

Self-Awareness

Two of the female athletes identified factors associated with self-awareness as a source of their confidence. For example, one of the athletes stated, "I think I'm much more secure in myself, I know where I'm going, what I'm doing, and I know what I want, and I think you develop a level of confidence from that."

Athlete Specific Factors

Finally, 6 of the 14 athletes identified sources of confidence that were unique to them and not described by the global dimensions aforementioned. For the female athletes these additional sources of confidence were: enjoyment (taekwondo competitor), self-presentation (e.g., weight loss) (swimmer), and consistency as a result of having the same management team at major tournaments (hockey player). For the male athletes, these additional sources of confidence included: enjoyment (diver), omens (e.g., being upgraded to first class during travel) (track

athlete), commitment of other team members (rugby player), feeling deserving of a place on the team (rugby player), and going into competition as the underdogs with no support team².

Types of Confidence

Four salient types of sport confidence were identified by male and female athletes: Skill execution; achievement; physical factors; and psychological factors (see Figure 2). Superiority to opposition and tactical awareness emerged as types of confidence identified by the male athletes only.

Skill Execution

Ten of the 14 athletes (four male, six female) identified skill execution as a type of confidence. This type of confidence related to the athletes' belief in their ability to execute sport-specific skills technically correctly, and fulfill the requirements of their sport or position. For example, one of the swimmers highlighted:

I'd say that with regards to my race I've got a good start, I've got a good stroke, I've got the ability of easy speed so I'm quite fast but it's controlled so that when the last 50 comes I've still got quite a lot of energy left, I've got a shallow leg kick so I don't use my legs too much and zap oxygen . . . I've got a nice stroke, I'd say that was my biggest asset, I've got a nice freestyle with a nice high elbow and all that jazz.

Achievement

Achievement referred to the athletes' belief in their ability to achieve certain outcomes, or performance targets. Nine of the athletes (four male, five female) were confident about outcomes, such as "winning" or "beating their opponent," for example:

I just felt like this strong person and even if someone was fighting me down the last length there was no way they were gonna beat me, when I went out onto the blocks all I felt was excitement and wanting to get out there and race, I had no fear whatsoever.

Four of the athletes referred to their belief in their ability to attain performance targets such as achieving a certain time, score or distance. As one swimmer highlighted; "how confident I am to swim a certain time or hit a certain turn, but it's more about swimming a certain time for me so how much I believe that I can do that."

Physical and Psychological Factors

Nine of the 14 athletes (six male, three female) were confident about physical attributes such as strength, speed, stamina, and peak fitness, and eight of the fourteen athletes (four male, four female) were confident about psychological factors such as goal achievement, pre-performance routines, and ability to deal with nerves and expectations. For example, one athlete talked about the ability to remain in control when competing under the pressure of World Class competition:

Because the pressure's on in competition you need confidence in the training you've done and the dives that you're gonna perform, and confidence in your ability to control your nerves and the other things that you get distracted by.

²Sport omitted to protect anonymity of participant.

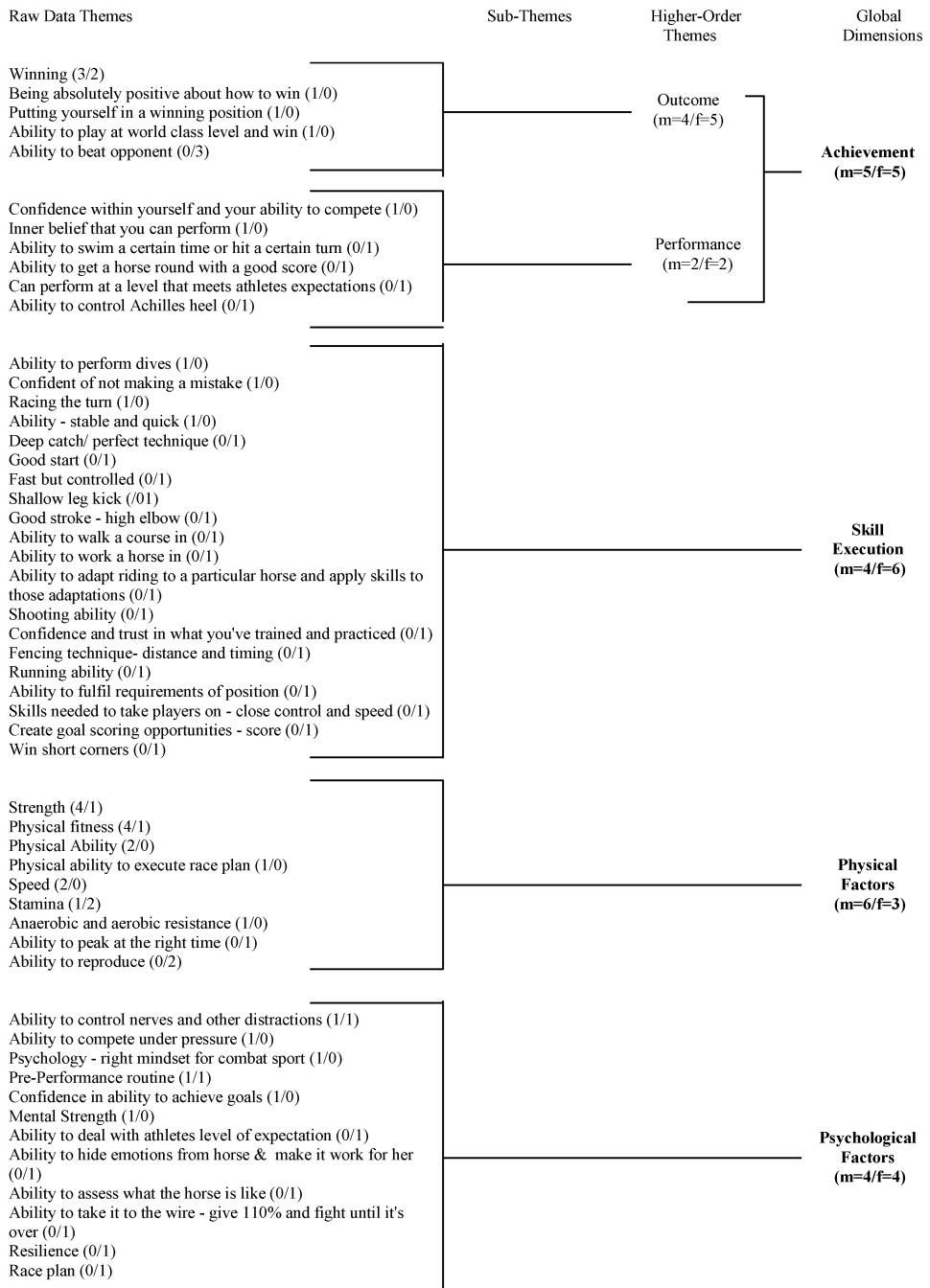


Figure 2. Themes and categories for types of sport confidence identified by World Class sport performers (Continued).

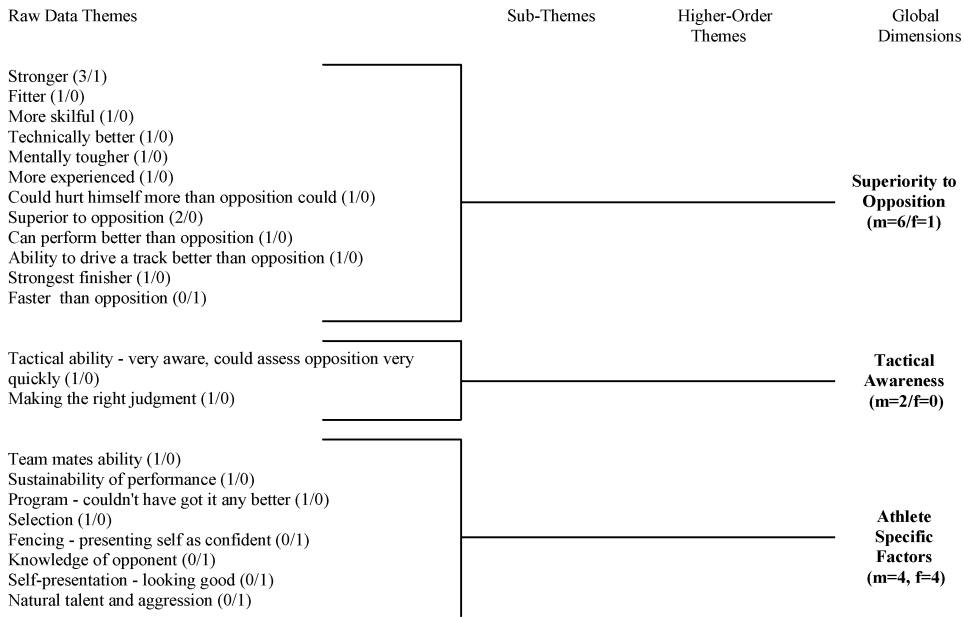


Figure 2. (Continued)

Superiority to Opposition

Superiority to opposition was identified as a type of confidence by six of the male athletes. In contrast, only one female athlete reported believing that she was “faster and stronger” than her opposition. This type of confidence related to the athletes’ beliefs that they were better than their opposition and included technical, physical, and psychological factors, as one rugby World Cup winner stated:

South Africa was a massive crunch game and we knew it was going to be physical but we knew we’d done the work, we knew we were stronger, we knew we were fitter, and we knew we were smarter just through everything we’d done, from vision training to the nutritional side of it, we were ready for that competition and more ready than we’d ever been.

Table 2
Types of Sport Confidence Identified by Successful World Class Sport Performers

Type of Confidence	Number of athletes Citing Type (N = 14)	Total% of athletes
Skill Execution	10 (4/6)	71%
Achievement	10 (5/5)	71%
Outcome	9 (4/5)	64%
Performance	4 (2/2)	29%
Physical Factors	9 (6/3)	64%
Psychological Factors	8 (4/4)	57%
Superiority to Opposition	7 (6/1)	50%
Tactical Awareness	2 (2/0)	14%
Athlete Specific Factors	7	50%

Note. Numbers in parentheses are (M/F).

It was evident that this athlete's source of confidence (i.e., holistic preparation) influenced the type of confidence he possessed (i.e., superiority to opposition). Indeed, confidence based on preparation was conducive to a strong sense of superiority over opposition in athletes who identified this type of confidence. For example, one Olympic gold medallist (track athlete) highlighted the benefits of training alone:

If I was confident it was because I knew that actually there's nobody out there that can really make me hurt . . . I knew that I had the mental and the physical ability to actually commit on a training park in the middle of nowhere at 4.00 in the afternoon, and if I can do it there I can sure as hell do it in an Olympic stadium.

In contrast, another Olympic medallist developed a strong sense of superiority from being faster and able to lift more weight than his training partners:

There was very little that I felt someone could beat me at and therefore I did feel superior to the rest of our team and that set me apart . . . I never once doubted that I would qualify for the World Championships. I never once doubted that I'd qualify for a World Cup or an Olympic Games. I just always felt that I was better than anyone else in our country and that I would qualify.

It is important to highlight, however, that despite having training partners, this athlete followed an individualized training program to which his training partners were submissive.

Tactical Awareness

Two of the male athletes were also confident about their tactical ability. For example, "being tactically very aware" and "making the right judgement."

Athlete Specific Factors

Finally, eight of the 14 athletes identified types of confidence that were unique to them and not described by the global dimensions aforementioned. For the female athletes, these additional raw data themes were; natural talent and aggression (taekwondo competitor), confident self-presentation (modern pentathlon athlete), knowledge of opponent (judo competitor), and self-presentation (e.g., looking good) (swimmer). For the male athletes, these additional raw data themes were: team-mates' ability (rugby player), sustainability of performance³, program and selection (speed-skater).

From the interviews it was evident that the athletes' types of confidence were derived from several sources. This would seem important in terms of developing robust sport confidence, as one of the athletes highlighted:

As I grew up I was told that I was naturally a great athlete. That gave me confidence but when I lost why couldn't I just turn it around? Because that bubble had burst, I hadn't won . . . So the confidence has obviously got to be coming from lots of places otherwise it's very easily broken just by not winning once.

³Sport omitted to protect anonymity of participant.

DISCUSSION

The purpose of this study was to identify the sources and types of confidence salient to successful World Class athletes. Nine sources of confidence were identified: Preparation, performance accomplishments, coaching, innate factors, social support, experience, competitive advantage, self-awareness, and trust. With regard to types of confidence, skill execution, achievement, physical factors, and psychological factors were identified by both the male and female athletes. Superiority to opposition and tactical awareness emerged as additional types of confidence identified by the males.

The findings provide some support for the self-efficacy predictors identified by Bandura (1997); specifically, verbal persuasion, and performance accomplishment. Verbal persuasion was important to the female athletes who identified coach feedback and positive reinforcement as a source of their confidence. Performance accomplishment, thought to represent the most powerful effects upon self-efficacy (Bandura, 1997), was identified as a source of confidence by all of the athletes interviewed. Previous research utilizing World Class athletes (e.g., Durand-Bush & Salmela, 2002; Greenleaf et al., 2001) has suggested that focusing on performance, rather than outcome, is conducive to successful Olympic performances. However, these studies have not made gender comparisons. Results of the present study seemed to suggest that males focused more on successful competition outcomes, whereas the majority of female athletes identified good personal performances as a source of their confidence. These findings are in accordance with research that has identified different antecedents predict self-confidence in males and females (e.g., Gill, 1988; Jones et al., 1991). The results of the present study certainly raise awareness of possible gender differences in the goal orientation of those competing on the World Class stage. Previous studies (e.g., Duda, 1986; White & Duda, 1994) have shown that in comparison to females, male athletes place a greater emphasis on winning and beating others in the athletic context. Indeed, throughout her research on competitive sport orientation, Gill (1988; 1993) has shown that males typically score higher than females on competitiveness and win orientation. Recent research designed to examine the relationship between task and ego orientations and the use of stress-coping strategies among Olympic athletes did not reveal any significant gender differences on achievement goal orientation (Pensgaard & Roberts, 2003). However, a low number of female athletes participated in the study. Gender comparison is one area in which sport psychology research is limited in both scope and depth and most of our knowledge about elite athletes is based on studies involving male athletes (Gill, 1992). Consequently, future research should elaborate on the findings of the present study and determine whether female World Class athletes differ from males in their competitive goal orientation. If so, this might have important implications for goal-setting interventions.

In addition to competition accomplishments, several athletes identified training accomplishments as an important confidence source, highlighting the importance of structuring goal-setting programs towards achieving both, training and competition targets. Indeed, goals have been consistently identified as a crucial component of World Class athletes' training programs (Durand-Bush & Salmela, 2002).

Mental preparation, rather than imaginal experiences per se, was identified as a confidence source by the majority of the World Class athletes. Although two of the athletes did make reference to some form of mental rehearsal, several additional mental skills were also identified (e.g., pre-performance routines, anxiety control, self-talk). Structured goal-setting and identifying and rectifying weaknesses were also highlighted by the athletes as an important confidence source. Thus, while the positive role of imagery on athletes' feelings of confidence

is well-documented, the present study reinforces the importance of drawing on a variety of mental skills when preparing for elite competitive performance (cf. Thomas et al., 2007).

The remaining efficacy predictors, vicarious experience, and emotional and physiological states, were not identified as sources of confidence by this elite group. Although several studies have demonstrated that vicarious experience is an important means of enhancing confidence (e.g., Hardy et al., 2001; Jones et al., 2002), it is possible that the athletes' World Class status made them less likely to derive confidence from observing other athletes performing successfully. It is also possible that the positive affective responses, and facilitative interpretations of physiological arousal thought to accompany high levels of confidence (Jones et al., 1994; Vealey, 2001), might have been viewed as a consequence rather than as a source of sport confidence, by the athletes interviewed. These suggestions need to be investigated empirically.

In accordance with Vealey et al.'s (1998) contentions, the athletes in the present study did identify additional sources of confidence over and above Bandura's (1997) self-efficacy predictors. For example, consistent with the findings of Vealey et al. all the athletes in this study highlighted preparation as an important source of their sport confidence. Multifaceted preparation has been identified as a positive factor influencing the performance of Olympic athletes (Greenleaf et al., 2001), and this particular confidence source was also cited multiple times in a multitude of ways. Consequently, responses were categorized into three distinct higher order themes: Physical, mental, and holistic preparation. A holistic approach to competition is a confidence source unique to this study and included the use of additional resources, such as video analysis, which facilitated confidence. Such resources are likely to be more readily available to successful World Class athletes, which might elucidate why such factors have not been identified by the high school, collegiate, and masters athletes previously examined (e.g., Vealey et al., 1998; Wilson et al., 2004). Nonetheless, since World Class athletes derive confidence from multifaceted preparation, a multi-disciplinary approach to athlete support would seem necessary.

The credibility, enthusiasm, and knowledge of Olympic-level coaches have been identified as critical to their athletes' success (Gould et al., 1999). Thus, it is perhaps unsurprising that the coach was identified as another fundamental source of confidence for the athletes interviewed. Again, gender variations were seemingly evident. Females derived confidence primarily from their coach's encouragement, positive feedback/reinforcement, and compliments, akin to the 'social support' source of sport confidence identified by Vealey et al. (1998). In contrast, male athletes tended to derive confidence from a belief in their coach to establish an appropriate training program, comparable to Vealey et al.'s (1998) 'coach's leadership' source of sport confidence. Social support per se, was identified by an equal number of male and female athletes, suggesting that males do derive sport confidence from this area. However, this source of confidence referred to the social support of family, partners, and/or friends, rather than coaching staff. These results have obvious but important implications for coaching practice. It might be that a prescriptive or autocratic style of coaching is more facilitative to the confidence of male athletes, whereas female athletes would benefit more from a socially supportive coaching role. These findings would seem congruent with research examining gender differences in regard to preferred coaching behaviors. For example, male athletes have been found to favor an autocratic coaching style more so than female athletes who exhibited greater preference than males for a democratic coaching style (e.g., Chelladurai & Saleh, 1978; Terry, 1984). Thus, coaches should be aware of the possible gender differences and be encouraged to interact with their athletes' in a way that is facilitative to the athlete's sport confidence.

Although parallels can be drawn between the results of the present study and previous research, the findings highlighted within this investigation seem to provide further evidence that organizational factors influence the sources of sport confidence utilized by athletes. For example, physical self-presentation, identified as an important source of confidence by the collegiate athletes in Vealey et al.'s (1998) study, was acknowledged by only one of the World Class athletes interviewed. Vealey et al. (1998) proposed that either the elite nature of collegiate sport or the greater emphasis placed on body type and presentation in individual sport, might explain the importance collegiate athletes placed upon this confidence source. Given that 86% of the World Class athletes in the present study also participated in individual sports, these contentions seem unlikely. Comparisons between the findings of the present study and Vealey's research are cautionary, given the two different types of analyses and the large difference in the numbers of participants. Further research is required to examine causal explanations for the importance collegiate athletes place upon their physical self-presentation, and would seem necessary given the potential implications for sport professionals working with collegiate athletes.

The inductive qualitative approach employed by the present study resulted in the identification of additional sources of sport confidence not highlighted by previous research (e.g., Vealey, 1998). For example, five male and two female athletes, believed that they were born with some 'innate ability' that facilitated their sporting success. These abilities ranged from psychological factors such as competitiveness, confidence, and analytical skill, to physical factors such as natural skill and speed. The foundation for such beliefs cannot be inferred from the present study, but given the robust nature of such a confidence source, this area is certainly worthy of further exploration.

Perceived competitive advantage was a confidence source identified by the female athletes only. This suggests that synonymous with previous research (e.g., Lirgg, George, Chase, & Ferguson, 1996), female athletes tended to be situationally dependent on external information in establishing performance expectations. Vealey et al. (1998) proposed that athletes that derive their confidence from uncontrollable sources such as the environment, may develop weaker or unstable perceptions of control and competence. As such, female World Class athletes might be more susceptible to external confidence debilitating factors such as the organizational stressors associated with World Class sports performance. Indeed, previous research has suggested that male athletes demonstrate higher levels of confidence than female athletes (e.g., Krane & Williams, 1994; Lirgg, 1991; Vargus-Tonsing & Bartholomew, 2006), and are less susceptible to changes in self-confidence during the pre-competition period (Jones & Cale, 1989; Jones, Swain, & Cale, 1991). This study would seem to suggest that gender differences might also be evident at the World Class level. Although research has shown that at the Olympic Games athlete confidence levels can be susceptible to instability (Gould et al., 1999), gender variations have not been examined in Olympians. Thus, further research is required to explore the relationship between gender and levels of sport confidence in World Class athletes and identify possible confidence debilitating factors. This is particularly important given that even the most skilled performers have been found to perform poorly under circumstances that undermine their belief in themselves (e.g., Bandura & Jourden, 1991; Wood & Bandura, 1989). Such research is likely to influence the development of interventions targeted at specific confidence needs.

An equal number of male and female athletes also derived confidence from their athletic 'experience,' another positive performance factor cited by athletes and coaches from successful Olympic teams (Gould et al. 1999). The athletes in the present study made reference to the increased understanding they developed through their athletic experiences, which is perhaps

unsurprising given the length of time they had spent competing at the highest sporting level. In addition to experience, two of the female athletes also identified factors associated with 'self-awareness' and maintained that when they felt happy and confident in their life outside sport, these feelings transferred to how they felt within sport.

Two of the male athletes identified 'trust' as a source of confidence, in terms of trust within the support team (individual sport participant), and trust in teammates to "perform to the same standard as you want to achieve" (team player). Given that in team sports an athletes' performance are influenced by that of their teammates, team players are likely to have differing sources of sport confidence available to them when compared to individual sports participants. Since only two team players were interviewed in the present study, sport type comparisons could not be made. This area warrants further exploration.

With regard to types of sport confidence, the findings of the present study support the notion of sport confidence as a multi-dimensional construct. The athletes were able to make the distinction between where they derived their confidence from (i.e., sources of sport confidence) and what they were confident about (i.e. types of sport confidence) without difficulty. Thus, through the rich qualitative data derived from World Class sport performers, this study is the first of its kind to provide a solid conceptual foundation for the existence of different types of sport confidence. Furthermore, the findings of this study indicate that the sources of confidence identified by World Class athletes might influence the types of confidence they possess. For example, all of the athletes interviewed identified preparation as a source of their confidence. The majority of these athletes were also confident about 'skill execution,' their ability to perform sport-specific skills technically correctly and fulfill the requirements of their sport or position. It would seem logical then to view types of sport confidence as evidence-based belief systems grounded in athletes' sources of sport confidence. Further research specifically examining the relationship between sources and types of sport confidence is needed before this level of causality can be assumed.

Gender was found to influence the types of confidence identified by the athletes. For example, superiority to opposition was identified as a type of confidence by six of the seven male athletes, as opposed to only one of the female athletes. Whereas the female athletes derived confidence from the feeling that they had a competitive advantage over their opposition, the male athletes just believed they were superior. Again, causality cannot be inferred from the present study and further research is necessary to identify the reasons for such observed gender differences.

Limitations

One obvious limitation associated with the present study concerns sampling. Since 12 of the 14 athletes interviewed represented individual sports, the findings cannot be generalized to athletes participating in team sports. Furthermore, as highlighted by the present study and by previous research (e.g., Vealey et al., 1998; Wilson et al., 2004), the sources and subsequent types of sport confidence are influenced by the context in which athletes are immersed. As such, the findings cannot be generalized to other athlete groups.

Another important limitation associated with the present study was time. The athletes interviewed were amongst the most successful in the United Kingdom and given their time schedules it was not possible for them to authenticate that the interview transcripts accurately reflected their perceptions.

Concluding Remarks

In summary, the present study endeavored to investigate one of the most important influences on sporting performance from the perspective of successful World Class sports performers. The sources of confidence identified, and the variations within them, are unique to sport and the World Class athletes interviewed. Consequently, the use of in-depth interviews enabled the exploration of meanings of sport confidence for a limited sample, and resulted in contributions to the literature that have not been previously addressed.

The results of the present study have both theoretical and practical applications. Theoretically, the findings emphasize the multi-dimensional nature of sport confidence and the importance of utilizing a sport-specific framework to aid future research. Although self-efficacy theory has been successfully applied to many disciplines of psychology, it would seem that athletes used additional sources of confidence that are not associated with Bandura's (1997) self-efficacy predictors. These sources are associated specifically with the sporting context and include preparation, innate ability, experience, and factors relating to the athletes' coaches and the competition environments. The sources of confidence identified appeared to form the basis of the athletes' sport confidence beliefs and would therefore seem critical to their confidence levels.

From a practical perspective, the findings have implications for sport psychology consultants providing support to athletes competing on the World Class stage. Evidently, the development of interventions targeted towards protecting and enhancing an athlete's sources and types of confidence is warranted. However, the present investigation provides further evidence that demographic and organizational factors influence the sources of sport confidence utilized by athletes. These factors need to be considered when assessing the confidence levels of performers. Consequently, the development of applied instruments designed to assess an individual's particular confidence needs (i.e., sources and types of confidence), regardless of gender, sport level, or sport type is merited. Furthermore, all athletes cited multiple sources and types of confidence which would suggest that it's unwise to focus on any particular source or type of confidence in practice. Rather, encouraging athletes to derive confidence from a multitude of sources, and develop an understanding of how and why they perform successfully, might enable them to develop a more robust sport confidence.

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